

**New Mexico's PAX Good Behavior Game Initiative  
An Implementation and Outcome Report: 2017-2018**

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## **New Mexico's PAX Good Behavior Game Initiative An Implementation and Outcome Report: 2017-2018**

### **Executive Summary**

PAX Good Behavior Game (PAX GBG) teaches children self-regulation, how to focus on their school work, and how to cooperate with others in the classroom, using positive behavior reinforcement and peer influence. Results include increased attentiveness, reduced off-task behavior, and decreases in aggressive, disruptive, shy, and withdrawn behavior. PAX GBG-supported behavioral changes lead to improved academic success and mental health and substance use outcomes later in life. PAX GBG has been implemented for three years in New Mexico. During the 2017-2018 school year, it was implemented in 11 school districts and one indigenous community (Navajo), which began implementation mid-year. Funding was in place early enough in 2017 for the first full academic year of implementation. Working as a project team, Coop Consulting, Inc. coordinated training and booster sessions, provided coaching and other teacher supports; program developer PAXIS Institute provided certified trainers, teacher materials, and offered guidance on roll-out, problem-solving, and research approaches. Teacher turnover was met with a schedule of new teacher training, and a few new school sites that wanted to implement PAX GBG were added within these districts as training opportunities were available. Funding was provided by the Office of Substance Abuse Prevention, Behavioral Health Services Division of New Mexico's Human Services Department, with Federal funding provided by the Substance Abuse and Mental Health Services Administration. Funding was part of the State Targeted Response to the Opioid Crisis Grant (STR).

Training and services offered to communities implementing PAX GBG include: Initial teacher trainings, Booster sessions, Professional Learning Communities (PLCs), PAX Partner training, Administrator trainings, Site visits/PAX Partner visits, Ongoing PAX Partner support sessions, Data Collection, regular PAX Newsletters to support implementation, and data collection and analysis. A total of 217 classroom teachers, 37 administrators, and 108 specials/Special Education/support staff participated in the initial teacher training, reaching an estimated total of 4,340 students. Booster trainings reached 372 classroom teachers, 17 administrators, 113 specials/Special Education/support staff including teachers and staff trained in previous years of implementation. The benefits of the Booster session reached a total of 7,575 students. This year's PAX Partner training brought 34 new PAX Partners to the 12 districts. Added to the previous years' Partners, this totals 49 trained PAX Partners throughout the state.

Evaluation data for the school year demonstrated a statistically significant statewide decrease of 56.5% in Spleems, a measure of off-task or inattentive behaviors that are identified and counted discretely by trained observers. Students' social competence scale scores had a statistically significant rise of 21.3% statewide over the school year. A teacher burnout survey and fidelity instrument demonstrated that higher fidelity when implementing PAX was associated with a modest but statistically significant drop in emotional exhaustion of the teacher.

# **New Mexico's PAX Good Behavior Game Initiative An Implementation and Outcome Report: 2017-2018**

## **Introduction**

PAX Good Behavior Game (PAX GBG) is one of the most positively reviewed, classroom-based prevention programs. It is used by teachers to build positive, supportive, and engaged classroom environments. These environments, in turn, support improved learning conditions for students and result in more teaching time and greater teacher satisfaction. PAX GBG is included in the Substance Abuse and Mental Health Services Administration's National Registry of Effective Prevention Programs, and was recently described as "the next big thing in child and adolescent psychiatry" by the *Child and Adolescent Psychiatric Clinics of North America*. (*The Next Big Thing in Child and Adolescent Psychiatry Interventions to Prevent and Intervene Early in Psychiatric Illnesses*, Shoemaker, et.al.)

PAX GBG is designed to teach children to self-regulate, sustain attention, and cooperate with others in the classroom – resulting in increased attentiveness, reduced off-task behavior, and decreases in aggressive, disruptive, shy, and withdrawn behavior. PAX GBG-supported behavioral changes lead to improved academic success and mental health and substance use outcomes later in life. Research shows that PAX GBG confers significant reduction of early mental or behavioral disorder symptoms (ADHD, conduct problems, emotional problems, peer problems), alcohol, tobacco, and drug addiction, exposure to and commission of violent crimes, high-risk sexual behavior, and risk of suicide. PAX GBG evolved from the original Good Behavior Game developed by a teacher and studied with fourth-graders in the 1960s. In 1999, PAXIS Institute, developed by Dr. Dennis Embry, created a way to train school teachers and staff on how to practice the Good Behavior Game and conducted in-depth research to validate this evidence based practice, calling it PAX Good Behavior Game. PAXIS Institute trains teachers and staff across the world and offers the leading method for utilizing the Good Behavior Game for positive student and staff impact.

PAX GBG is a "universal prevention program" aimed at improving classroom environments. Designed as a group-based game led by trained classroom teachers and used daily during regular school hours and concurrently with regular classroom instruction, it is played by three or four teams of students who make up the enrollment of the classroom. The program encourages positive interactions among students and between students and teachers, and offers immediate feedback, while creating positive peer behaviors and excitement among young children in the classroom. It helps children learn to focus on classroom work for increasingly longer periods of time, followed by brief periods of release and reward. PAX GBG activities are designed to use positive behavioral reinforcement and peer pressure to socialize children to the role of the student. The entire intervention uses positive and playful language. Reductions in disruptive behaviors (called Spleems) are monitored over time to assess progress.

PAX GBG is also a trauma-informed care prevention model. If children have past trauma exposure, or live in an environment of multiple Adverse Childhood Experiences (ACEs) and their resulting stress, the beneficial impact of PAX GBG can be profound. Students are co-creators and active agents in creating a nurturing environment in the classroom. That nurturing environment is essential for long-term resiliency and wellbeing. This is especially important for children exposed to adversity or trauma. PAX GBG is informed by principles of trauma-informed care and resiliency, having immediate measurable benefits that translate into lifetime benefits, affecting the common symptoms of ACEs or trauma exposure. Sixteen long-term follow-up studies consistently show that one or two years of exposure to PAX GBG buffers, heals, or averts many of the long-term outcomes of ACEs. PAX GBG prevention effects reduce the impact and exposure risk of intergenerational trauma, such as alcohol or drug abuse in the home, drug-affected babies and violence or other child maltreatment. Studies have shown that nurturing environments are key for reducing the impact of childhood trauma, and putting children on a resiliency path for positive developmental outcomes. (2017, *PAX Good Behavior Game: Real-World Impact*, PAXIS Institute.)

### **History of PAX Good Behavior Game in New Mexico**

In 2012, a grant from the Kellogg Foundation funded two districts in New Mexico, Ruidoso and Farmington Municipal Schools, to begin the implementation of PAX GBG. Multi-year funding from the Substance Abuse and Mental Health Administration (SAMHSA) sustained this effort for several more years. In 2015-2016, the State of New Mexico Behavioral Health Services Division's (BHSD) Office of Substance Abuse Prevention (OSAP) dedicated funding to support a new implementation of PAX GBG. The program developer PAXIS Institute, and Coop Consulting Inc. collaborated to introduce PAX GBG to a broader group of school districts in the state of New Mexico. Coop Consulting Inc. coordinates the project planning and recruitment, training schedules and logistics, implementation, and collection and analysis of data across the state. PAXIS Institute provided certified trainers, teacher materials, and technical assistance to Coop Consulting. The first year program included three school districts in New Mexico: Bloomfield Public Schools, Espanola Public Schools, and Santa Fe Public Schools. These schools were trained in January 2016 and began implementation immediately, and demonstrated very positive evaluation results at the end of the school year.

Recruitment of new districts to participate in PAX implementation resulted in seven additional districts enrolling for the second year of New Mexico's PAX initiative, based on responses to an application provided to all of New Mexico's 89 school districts. The districts that joined the initiative included: Bernalillo Public Schools, Chama Valley Independent Schools, Cobre Consolidated Schools, Deming Public Schools, Socorro Consolidated Schools, Truth or Consequences Municipal Schools, and Tucumcari Public Schools. These seven districts, plus Farmington Municipal Schools from the previous 2012 initiative, and all three districts from the first year program were implemented PAX during this year two roll-out. The funding was identified after the start of the school year, leading to a fall recruitment period and a winter/spring initial training and implementation by 11 districts. Positive evaluation results were found for this implementation period, 2016-2017.

The first full year of implementation -- 2017-2018 -- was supported by funding from the Substance Abuse and Mental Health Services Administration's (SAMHSA) State Targeted Response to the Opioid Crisis (STR) grant, and directed by the Behavioral Health Services Division's (BHSD) Office of Substance Abuse Prevention (OSAP), as was the first two project years. The sustaining 11 districts continued to implement PAX, and were joined by one indigenous community PAX implementation, Ch'ooshgai Community School (Navajo). This brought to 12 the number of communities and/or districts across New Mexico that are practicing PAX GBG.

PAXIS Institute and Coop Consulting, Inc. continued to collaborate to train new staff, account for turnover rates of teachers, bring on new schools in each district and encourage school wide implementation to support stronger PAX communities. These districts received an initial teacher training for teacher turnover and some expansion where there was training capacity available, and booster sessions. Professional Learning Communities (PLCs), PAX Partner trainings and support for district partners, site visits, administrator briefings and trainings and additional supports toward PAX implementation were also provided. As in the previous two years, PAXIS Institute provided certified trainers for all training events, while Coop Consulting, Inc. coordinated all training schedules, logistics, and provided coaching, PLCs, site visits, PAX Partner recruitment and management, payments, data collection and analysis.

## **Logistics**

Coop Consulting, Inc. is a small research, evaluation and planning firm located in Santa Fe, New Mexico. Areas of focus include: substance abuse prevention and treatment, early childhood development and learning systems, state aging and long term service systems, youth and community development initiatives, and primary health care systems. One of the current projects being implemented is the PAX Good Behavior Game. The project manager supervises overall project roll out, manages the project budget, and provides guidance for two full time staff. Staff include a PAX Coordinator and Associate, as well as a part-time Data Analyst and Evaluator. The coordinator communicates with all stakeholders at the local school district, State, and with PAXIS Institute to manage all logistics. They handle these logistics to develop successful training opportunities for school staff, while managing each district's needs and supporting all PAX practitioners. The PAX Coordinator also designs and provides PLCs, coaching and mentoring, recruits and manages PAX Partners in all locations, produce a project newsletter, conducts regular webinars and Partner calls for support and problem solving, reimburses districts for substitute teacher utilization when necessary to support training, and related tasks. They also manage and coordinate data collection in every district. The project evaluator assists in analyzing and sorting the data from each data collection instrument.

Coop Consulting, Inc. works in collaboration with the President and Lead Trainer of PAXIS Institute, and PAXIS staff as appropriate, to plan and provide successful and effective trainings. The New Mexico PAX Coordinator connects with school districts to schedule and plan training logistics. Once the trainings have been scheduled and attendees have been identified, the

coordinators and PAXIS work together to select an available trainer and plan all necessary details for their travel to New Mexico. Coop Consulting orders the number of PAX GBG kits/supplies needed for each training with PAXIS, which get shipped to the training location. Coop Consulting hosts the training and arrives the day before to set up all materials and training supplies for attendees. The PAXIS trainer conducts the trainings. Once staff have been trained, Coop continues to provide ongoing communication and support through bi-weekly newsletters and is consistently available to address each need that arises. On a bi-annual basis, Coop and PAXIS meet to conduct strategic planning, plan for sustainability, and work to develop independent funding approaches for districts across the state, especially among the 12 current participating districts who seek to expand their PAX GBG implementation with their own funding.

## **Implementation**

The 2017-2018 school year PAX implementation included various opportunities for teachers to develop and grow their knowledge about PAX Good Behavior Game (GBG).

### *Initial Teacher Training*

The initial training is a one-day, 7-hour training to educate teachers and staff on the foundations and elements of implementing the PAX Good Behavior Game. At this training, attendees acquire a PAX GBG kit with all the supplies needed for implementation in the classroom. The kit provides teachers with the skills and materials necessary for implementation. The participants learn about the reason for PAX GBG, including research on impacts of PAX GBG on student mental health, substance abuse and suicidality. Once attendees learn the reasons for implementing PAX GBG, they begin to learn about how to implement each Kernel, which are the building blocks of the Good Behavior Game. There are 10 Kernels that teachers learn. They include: PAX Vision, PAX Leader, PAX Quiet, PAX Voices, PAX Hands and Feet, PAX Stix, Beat the Timer, Granny's Wacky Prizes, Tootle Notes, and OK/Not OK. Upon learning, implementing and practicing these Kernels with fidelity, a teacher can then lead his/her students in playing the Good Behavior Game. The training outlines the ways to practice these elements in the classroom, while maintaining traditional instruction and implementing lesson plans, contributing to more teaching time. Attendees learn how to play the Good Behavior Game through engaging lecture and interactive experiences.

Attendees will be set up with a log-in for the Good Behavior Game website, allowing them to access various resources. Teachers will also have the opportunity to connect to the PAX UP! App on their mobile devices or computer. This helps them utilize the Kernels in an effective way that is trackable throughout the school year. Attendees sign-up for the New Mexico PAX Newsletter once they attend this training. This newsletter comes out regularly to support teachers in the process of implementation through descriptions and tips about step-by-step processes as well as sharing data, important events and deadlines. During this training, teachers and staff learn what it takes to implement PAX GBG in their classrooms and school-wide.

Initial trainings during the 2017-2018 School Year were coordinated with administrators or district stakeholders, as well as PAX Partners that were trained in June 2017.

The project presented nine (9) trainings took place across the state to train a total of twelve (12) districts, one of the districts being an indigenous community school. Many trainings had staff from various districts attend, and turnover staff from schools with a smaller population were also invited to attend. Larger districts had trainings throughout the school year in order to support turnover staff and spread PAX to new schools in thier district. For example, Bloomfield Public Schools, a sustaining school, the majority of the school staff are already trained in PAX, those teachers new to Bloomfield Public Schools this school year attended the initial teacher training for PAX with Farmington Municipal Schools, a short distance away from Bloomfield Public Schools. Farmington Municipal Schools, on the other hand, being a large district, had two (2) initial teacher trainings to account for their large numbers. This also occurred across the state for smaller districts paired with larger districts for their training: Chama Valley Independent Schools and Espanola Public Schools, Cobre Consolidated Schools and Deming Public Schools, Truth or Consequences Municipal Schools and Socorro Consolidated Schools.

Initial teacher trainings began as early at July 27, 2017 and continued into late August with the exception of two districts. Tucumcari Public Schools, which occured October 6th for their turnover staff and support staff due to scheduling challenges; Ch'ooshgai Community School, a community on the Navajo Nation, who were trained on November 30, 2017 as the first New Mexico Indigenous PAX school. Initial teacher trainings continued into February, some funded by schools with their own resources to sustain PAX at their sites.



The table below displays the number teachers, administrators, specials/Special Education, support staff, and the estimated student reach in each district that participated in a PAX initial teacher training over the 2017-2018 school year.

| <u>District</u>       | <u>Teachers</u> | <u>Administrators**</u> | <u>Specials/Special Education/Support Staff*</u> | <u>Estimated Student Reach</u> |
|-----------------------|-----------------|-------------------------|--|--------------------------------|
| Bernalillo            | 7               | 3                       | 5  | 134                            |
| Bloomfield            | 3               | 0                       | 0  | 75                             |
| Chama                 | 5               | 0                       | 2  | 101                            |
| Ch'oozhgai            | 9               | 2                       | 6  | 157                            |
| Cobre                 | 13              | 3                       | 11   | 234                            |
| Deming                | 45              | 1                       | 14   | 981                            |
| Espanola              | 29              | 4                       | 15   | 504                            |
| Farmington            | 46              | 11                      | 18   | 1,029                          |
| Santa Fe              | 21              | 10                      | 13   | 332                            |
| Socorro               | 13              | 1                       | 1  | 278                            |
| Truth or Consequences | 17              | 1                       | 21   | 324                            |
| Tucumcari             | 9               | 1                       | 2  | 191                            |
| <b>Totals</b>         | <b>217</b>      | <b>37</b>               | <b>108</b>                                       | <b>4,340</b>                   |

*\*Specials teachers are defined as teachers who teach art, music, computer/technology, physical education and the librarian. Special Education staff are those that work with students who have an Individualized Education Plan (IEP) and need more individualized interventions, either in small group or one-on-one for educational and/or behavioral needs. Support staff can be defined as mostly educational assistance, who support teachers in the classroom.*

*\*\*Administrators include Principal, Assistant Principal, Dean, Counselors, Instructional Coaches*

A total of 217 classroom teachers, 37 administrators, 108 specials/Special Education/support staff were trained, reaching an estimated total of 4,340 students across the state with this year's trainings alone.

### *Booster Session*

PAX Next Steps Training (i.e. Booster) is a three to four hour refresher to help teachers enhance the depth of their implementation and extend the generalization and maintenance of self-

regulation, addresses barriers teachers may be experiencing. Participants in the booster training review PAX Kernels, and learn about new and enhanced ways to practice these elements of PAX with more accurate fidelity. Attendees ask questions about what may be challenging them in the implementation process. This offering is not only available to teachers and staff trained this school year, but also to teachers trained in previous school years. These teachers likely need a refresher on PAX GBG implementation, and the project can continue to support and sustain PAX for those teachers trained in the past.

Booster sessions were scheduled with PAX Partners, school administrators, and/or district stakeholders. The challenges of a school schedule are many, including limited Professional Development (PD) days for trainings. Scheduling Booster sessions was difficult across all districts. The project aims to have a total of 12 Boosters, one for each district to cover all staff previously trained in PAX, in current and past school years. Coop Consulting, Inc. collects data from the teachers, asking them to complete an in-depth social competence scale on each one of their students, this survey is called the Fast Track Survey, and were also asked to complete the Maslach Burnout Inventory (MBI) to assess teacher stress. These two surveys conducted during the booster session ensures collection of pre-implementation data for these two data points. It took about one hour for teachers to fill these surveys out.

Booster sessions during the 2017-2018 school year occurred between September 2017 and March 2018. The wide range in scheduling time speaks to the difficulty of working with school calendars and schedules. Boosters meant to last three to four hours were sometimes shortened to one to two hours in order to accommodate school schedules. The setting, style, and number of attendees for each training varied. For example, at Santa Fe Public Schools, boosters were done during teacher preparation time, teachers of each grade level team, a small group of four to five teachers, would meet with the trainer for about one hour. The trainer would move from classroom to classroom and school to school providing booster sessions to fit the time available, tailored to the needs of those present. Some districts had boosters scheduled during their Professional Development days, staff meetings or minimum days, which made their booster two hours in duration with a larger gathering of teachers.

The table below displays the teachers, administrators, specials/Special Education/support staff, and the estimated student reach for each district across the state that participated in a PAX booster session over the 2017-2018 school year.

| <u>District</u>       | <u>Teachers</u> | <u>Administrators**</u> | <u>Specials/Special Education/Support Staff*</u> | <u>Estimated Student Reach</u> |
|-----------------------|-----------------|-------------------------|--|--------------------------------|
| Bernalillo            | 20              | 1                       | 1  | 313                            |
| Bloomfield            | 30              | 2                       | 9  | 761                            |
| Chama                 | 6               | 1                       | 4  | 93                             |
| Ch'ooshgai            | 9               | 1                       | 6  | 157                            |
| Cobre                 | 11              | 2                       | 8  | 212                            |
| Deming                | 49              | 7                       | 14   | 997                            |
| Espanola              | 97              | 0                       | 33   | 1,675                          |
| Farmington            | 34              | 0                       | 8  | 885                            |
| Santa Fe              | 51              | 2                       | 15   | 1,176                          |
| Socorro               | 19              | 1                       | 4  | 396                            |
| Truth or Consequences | 23              | 0                       | 5  | 481                            |
| Tucumcari             | 23              | 0                       | 6  | 429                            |
| Totals                | 372             | 17                      | 113  | 7,575                          |

*\*Specials teachers are defined as teachers who teach art, music, computer/technology, physical education and the librarian. Special Education staff are those that work with students who have an Individualized Education Plan (IEP) and need more individualized interventions, either in small group or one-on-one for educational and/or behavioral needs. Support staff can be defined as mostly educational assistance, who support teachers in the classroom.*

*\*\*Administrators include Principal, Assistant Principal, Dean, Counselors, Instructional Coaches*

A total of 372 classroom teachers, 17 administrators, 113 specials/Special Education/support staff benefited from a PAX GBG refresher, reaching an estimated total of 7,575 students across the state. A substantial number of previously trained teachers, administrators and other educational staff took advantage of the Booster session. From the previous table, 362 teachers, administrators and other education staff were trained in the most recent year, while 502 from all three previous years attended a Booster session in the 2017-2018 school year.

### *Professional Learning Communities*

Professional Learning Communities, or PLCs, are short discussion based sessions embedded into the teacher's prep or already planned school PLC times. They can be conducted in small groups for one to two hours, discussing PAX elements that teachers wish to fine tune. They are geared to help increase professional discussions among teachers and staff in order to support effective school-wide implementation. These can also include a refresher session, at the beginning of a new term, to help teachers renew their vision and implementation after a school break.

Implementing PLCs is a Coop Consulting, Inc. initiative to help better support the implementation of PAX throughout the school year. Coop Consulting, Inc. coordinates and facilitates these discussions, schedules the session with districts/schools, allows a time to assist teachers in accessing and troubleshooting the use of the PAX Up! App, while also offering tools and supplies for best implementation practices.

Only one school district, Santa Fe Public Schools, took advantage of this new offering over the 2017-2018 school year. This was a very successful pilot of PAX PLCs, with much positive feedback from attendees. This will be a standard for future practice across all districts in the future.

For the Santa Fe Public School district, PLCs took place between January and February 2018, after winter break, to support the new term starting off strong with PAX. These sessions took place at the district professional development training center, a central location for those from the various PAX-implementing schools to meet. This offering was also hosted during the afternoon of their minimum days, which are Fridays between 1:30-3:30pm. These were small group gatherings which allowed for brainstorming and an in-depth conversation among teachers. A total of five PLCs were hosted and open to all PAX-implementing teachers and staff within the district. A total 35 teachers, three administrators, and five Specials/ Special Education/Support staff attended the PLCs across all five sessions, totaling 43 participants whose estimated reach was 875 students.

### *PAX Partner Training*

PAX Partner Training provides participants who have already been trained in PAX GBG with the skills and materials to support PAX teachers and improve implementation at the school and classroom level. PAXIS Institute provides trainers to conduct their PAX Partner training in a central location in New Mexico; Coop Consulting coordinates, recruits, organizes and provides fiscal support to participants. A six-hour online training and two days of in-person training. Day one consists of learning how to collaborate with teachers and administrators, practicing communication and PAX leadership for their school, participants also are trained in collecting data during this portion of the training. Day two consists of PAX Partners learning how to troubleshoot difficulties implementation and embedding PAX GBG throughout schools and communities. Attendees are PAX Partner Certified upon completion of the training, and then can provide individualized coaching to teachers in their school or district.

Prior to the PAX Partner Training, administrators are contacted to identify and select a PAX Partner who is implementing well and has the interest and capacity to support others in implementation across their school site. Once an individual is selected and registered, they can begin the online portion of the training. Once the online portion is completed, they attend the in-person two day training in Santa Fe Public Schools. The online training includes an in depth look at each Kernel and how to talk to and offer guidance and modeling to teachers in the classroom.

The PAX Partner in-person training for the 2017-2018 school year occurred on April 12th and 13th. Thirty-four PAX Partners were trained from ten districts. The goal for the upcoming 2018-2019 school year is to identify a partner for every school site. In the previous year, schools with partners on-site implemented more effectively than those with Partners off-site. For some schools with significantly higher populations, more than one Partner is necessary to support successful implementation.

Below is a table of numbers of PAX implementing schools per district and number of PAX Partners.

| District              | Number of Schools Implementing PAX | Number of PAX Partners Trained |
|-----------------------|------------------------------------|--------------------------------|
| Bernalillo            | 4                                  | 2                              |
| Bloomfield            | 1                                  | 3                              |
| Chama                 | 2                                  | 2                              |
| Cobre                 | 3                                  | 2                              |
| Deming                | 4                                  | 5                              |
| Espanola              | 11                                 | 12                             |
| Farmington            | 7                                  | 7                              |
| Santa Fe              | 8                                  | 8                              |
| Socorro               | 4                                  | 5                              |
| Truth of Consequences | 1                                  | 1                              |
| Tucumcari             | 1                                  | 2                              |
| <b>Totals</b>         | <b>46</b>                          | <b>49</b>                      |

Partners learn about what this role entails. This includes responsibilities as a model and PAX guide as well as ongoing communication with Coop Consulting, Inc. via monthly zoom calls, bi-monthly reports, Spleem counting, and support in coordination and data collection throughout the school year.

### *Administrator Training*

Administrator trainings are provided to all administrators of PAX-implementing schools within a district. This is a two to three hour training with the aim to guide and help principals in supporting their teachers in implementation with fidelity. This training covers topics such as: incorporating PAX into Professional Development days, PLCs, or staff meetings; how to make PAX school-wide and successful; addressing barriers teachers may experience, and the importance of data collection to support PAX in their schools. This training also offers a refresher of this trauma-informed care model, offering administrators insight into implementation of PAX Kernels and the sharing of data that shows the impacts of PAX GBG on students and teachers.

This training also allows time for strategic planning with administrators in collaboration with Coop Consulting, Inc. and PAXIS on how to develop and get the most from their PAX implementation.

A number of districts took advantage of the Administrator training during the 2017-2018 implementation period , including: Espanola Public Schools (ten administrators), Ch'oooshgai Community School (two administrators), Deming Public Schools (six administrators) and Santa Fe Public Schools (thirteen administrators).

Administrators play a key role in successful implementation at a school site or district. It is the project's goal to ensure that administrator trainings occur for all districts in future years.

### *Site Visits/PAX Partner Visit*

Site Visits/PAX Partnering offers a number of different opportunities for a more individualized approach to support the implementation of PAX. PAX Partnering includes working alongside the teacher as they teach their curriculum, acting as a model and support for PAX implementation. Coop Consulting, Inc. coordinates and acts as PAX Partner with teachers who are interested in this assistance. This offering can include time spent in the classroom to practice PAX as the teacher teaches, modeling implementation for the teacher with their students. Additionally, this can include a one-on-one or group brainstorming session, providing coaching to teachers, answering their particular questions or offering feedback and reflection time after a classroom visit. This allows teachers the opportunity to observe how PAX can be implemented in a classroom. As studies show, modeling leads to higher quality of implementation and greater fidelity. Partnering also helps reduce any perceived burden of the intervention due to feeling they are doing it alone. This offering increases teacher understanding of PAX GBG and allows teachers being Partnered to see part a of the program can yield immediate results.

Socorro Consolidated School District took advantage of this offering, including classroom visits and follow up visits to debrief in small groups by grade level. Nine classrooms were visited, observed, and actively partnered. Seveteen attended the small group sessions to discuss what was seen and brainstorm methods for more effective implementation across the school.

The project hopes that PAX Partners will be on-site in each building, in the coming year, and can offer this to their knowledge and coaching to their school on a consistent basis. This model is collaborative, non-evaluative and relationship-based, and increases implementation fidelity and the likelihood of success.

### **Additional Forms of Support**

#### *Ongoing Partner Support*

Monthly Zoom calls are scheduled for PAX Partners across the state to connect, share ideas, provide latest updates, and request help with how to best Partner teachers in implementing Kernels and other PAX Elements. Coop Consulting Inc. offers support on accessing and using elements of the App, and best practices in data collection. Partners will have an opportunity to practice their skills with

sample scenarios to stimulate ideas for Partnering approaches and the opportunity to explore topics of interest.

#### *Data Collection*

Coop Consulting Inc. collects and evaluates various points of data to measure the effectiveness of PAX in the state of New Mexico. Evaluation tools include three pre- and post- measurements: the counting of inattentive or off-task behaviors (“Spleems”) per student per hour of instruction; the Maslach Burnout Inventory (MBI), which measures aspects of teacher burnout; and the Social Competence Scale which assesses each student’s pro-social behaviors, emotional regulation, and academic skills. Two additional sources of data were collected once per year: the PAX Purrfect Scale which measures the extent to which teachers are implementing PAX GBG with fidelity and qualitative interviews with teachers on the impact of PAX GBG on their classroom environment. Coop Consulting Inc. supports districts and teachers in collecting these data in an effective and purposeful manner at the time of trainings, and in the development of data collection events planned with district PAX Partners to incentivize the input of this data. Coop Consulting Inc. then evaluates and analyzes the data in order to share information on the impact of PAX GBG with schools, districts, and state and federal funders.

#### *Newsletters*

Coop Consulting sends out regularly scheduled PAX Newsletters to effectively share information regarding PAX to all teachers and school staff. Newsletters include tips and tools for implementing each Kernel, as well as The Game. The newsletter also explores other elements of PAX GBG, such as collecting PAX Minutes, best ways to use PAX Up! App, sharing PAX GBG with parents and in communities, data collection reminders, sharing of data, and information regarding PAX GBG related events in New Mexico or available online. This is an exciting way to stay connected, learn, and have regular support and reminders regarding PAX GBG and the impact this practice can have state-wide.

#### *Meetings and Presentations*

To help support schools and districts in decision making, Coop Consulting Inc. also offers presentations and meetings to explain PAX GBG and what it means to be implementing in the state of New Mexico. This can help schools determine whether or not PAX GBG is a good fit for their teachers or prevention programming. Meetings can include presenting at staff meetings or district stakeholder meetings. This can allow for a greater understanding of what can be expected in becoming a PAX GBG-implementing school, and the impact PAX has already had in New Mexico.



## Implementation and Training Overview

For the 2017-2018 school year the following offerings and trainings occurred:

| Training/Offering                        | Number of Trainings/Offerings and Districts  |
|--|--|
| Initial Teacher Training                 | 8 Trainings for 12 Districts   |
| Booster Session                          | 12 Boosters, 1 at each of the 12 districts   |
| Professional Learning Communities (PLCs) | 6 PLCs, all for Santa Fe Public Schools  |
| PAX Partner Training                     | 1 Training, 34 Partners Trained, 11 Districts  |
| Administrator Training                   | 4 Trainings, Across 4 Districts  |
| Site Visits/PAX Partnering               | 1 Offering for 1 District upon request   |
| Partner Support                          | 15 Zoom Calls, ongoing phone/email support   |
| Data Collection                          | 13 Data Collection events for post data  |
| Newsletters                              | 22 Implementation Support Newsletters<br>7 Indigenous PAX Newsletters<br>9 PAX Partner Newsletters<br>40 Total Newsletters |
| Meetings and Presentations               | 5 presentations and meetings across 5 Districts  |

## Evaluation

### *Data Collection:*

Evaluation of PAX GBG during the initial pilot implementation (Spring semester of the 2015-2016 school year) included two data points: the counting of inattentive or off-task behaviors (“Spleems”) per student per hour of instruction, as reported by a trained observer, and the Strengths and Difficulties Questionnaire (SDQ), an emotional and behavioral screening questionnaire, collected via a Scantron document completed by teachers about each one of their students and sent to a contractor for generation of an electronic dataset. Both data instruments were collected pre- and post- implementation.

The evaluation tools for the second year of the project (spring semester of the 2016-2017 school year) included Spleem Counts, and a new instrument called the Social Competence Scale which assesses each student’s pro-social behaviors, emotional regulation, and academic skills. The movement from the SDQ to the Social Competence Scale aimed to more accurately

measure the student-related outcomes expected from the implementation of PAX and to simplify the process of data collection by using an online data collection system. Again, both data points were collected pre- and post- implementation. Additionally, qualitative interviews were conducted at the end of the implementation period to obtain testimonials from teachers implementing PAX.

The 2017-2018 school year was the first full year of implementation, offering a much greater duration between pre- and post- data collection. This also gave us the opportunity to implement two additional evaluation instruments to allow for a more in-depth evaluation of not only classroom environment and student behaviors, but also teacher burnout and PAX GBG fidelity. Coop Consulting, Inc. also continued to conduct qualitative interviews with teachers implementing PAX GBG for testimonials and stories about the use of PAX GBG in the classroom.

Below is an overview of this year's evaluation, including the collection process, analysis, and lessons learned for each evaluation instrument.

### **Spleem Counts**

Spleem counts are defined as the number of non-attentive, disruptive, or off-task behaviors per student per hour as reported by a trained observer. These data are collected pre-implementation and post-implementation. The pre-implementation Spleem counts were conducted at the beginning of the school year, within the first 2 weeks of the start of the school year (around the middle to end of August 2017 for the majority of schools). This provided a baseline for behaviors before PAX GBG implementation. The post-implementation Spleem counts occurred between March and May 2018, toward the end of the school year.

Trained observers and PAX Partner observers collected these data by visiting K-3 classrooms taught by a teacher trained in PAX GBG. Partners are more highly trained than observers on how to count Spleems in a classroom. Observers are school personnel who have been identified by administrators to undergo a short training on Spleem counting, and who then receive a stipend for each classroom observation. PAX Partners, on the other hand, learn about Spleem counting in much greater detail and ultimately work with higher accuracy during their three-day Partner training. Counting Spleems is part of their work as a PAX Partner, for which they receive a small honorarium at the beginning and end of each school year. Partners and observers entered the classroom for a 15 minute period of time, and recorded the number of non-attentive, disruptive, or off-task behaviors ("Spleems"). They tally the number of Spleems for each minute they were observing the classroom, then add up the numbers across the 15 minutes for a total. That number is then divided by the number of students present, for the number of Spleems per student, and then multiplied by 4 for an average of Spleems per student per hour.

Some Spleem count data were completed in March. This included small samples from Espanola Public Schools and Santa Fe Public Schools, as well as data from the entire districts of Chama Valley Independent Schools, Socorro Consolidated Schools and Tucumcari Public Schools. This

collection occurred for a preliminary report on statewide PAX GBG implementation efficacy for federal and state funders. The remainder of Spleem counts were collected in late April and throughout May. It is notable to consider the different times of Spleem count collection because March is prior to statewide testing time, while April and May are more stressful end-of-the-school-year months with testing embedded into this time frame. However, April and May data collection offer insights into a longer implementation period.

In some cases, pre-implementation data were collected later due to initial training that occurred later in time. This includes data collected for Ch'ooshgai Community School, as they were trained in late November 2017. Thus baseline Spleem counts were collected in December prior to full implementation of PAX GBG across the school. Additionally, some schools funded their own PAX GBG training throughout the school year, and Spleem count data were collected for those newly trained K-3 teachers. This includes Espanola Public Schools, who funded an additional training in January, and Farmington Municipal Schools, who funded an additional training in February. Spleem counts were done for those newly trained K-3 teachers shortly after these trainings, leading to a shortened implementation period for these teachers.

In the collection of pre-implementation Spleem counts, observers and PAX Partners collected their data on paper, using a Spleem counting observation form supplied by Coop Consulting Inc. Observers then inserted their data into the online data collection system, which is maintained by PAXIS Institute technology staff. At the end of the school year, PAXIS staff provided the data for each district to Coop Consulting, Inc. to conduct the statistical analysis.

### *Analysis/Results*

A total of 454 Spleem count observations were made in the pre-implementation period, resulting in an approximate coverage of 63% of teachers implementing PAX in the 2017/18 school year. In the post-implementation period, 285 observations were made resulting in an approximate coverage of 40% of teachers.

A small number of observations (six) were discarded that were collected on an electronic instrument rather than on paper, in order to remove any bias that inconsistent data collection processes may have caused. Pre- and post-implementation observations were matched by classroom, such that the pre- and post-implementation datasets contained the exact same classrooms, with any remaining observations being discarded. This matching process resulted in 204 pre-implementation observations being discarded and 30 post-implementation observations being discarded.

Some classrooms were observed twice to develop consistency and increase confidence in the results. Double observations for classrooms were averaged, and the table and chart only report the unduplicated number of classrooms that were observed. Unfortunately, this practice was not done consistently in all districts due to a lack of funding.

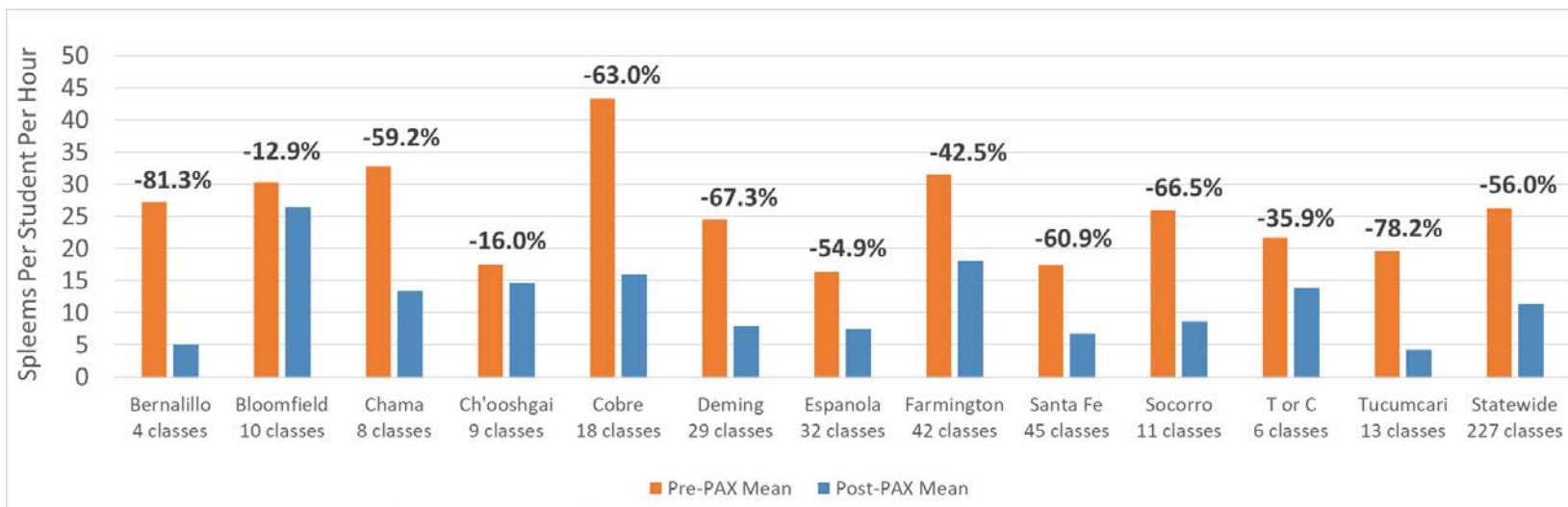
The average number of Spleems per student per hour and the standard deviation were

calculated for each district implementing PAX as well as for the state as a whole. Pre-implementation and post-implementation averages were analyzed using a comparison of means test, allowing for the calculation of whether or not any differences were statistically significant at the 95% confidence level.

The analysis showed a drop in Spleems per student per hour for each of the districts and the state as a whole. These drops were statistically significant at the 95% confidence level for all districts except for Bloomfield Public Schools, Ch'ooshgai Community School, and Truth or Consequences Municipal Schools (although Truth or Consequences Municipal Schools is significant at the 90% confidence level). The percentage change in Spleems ranged from -12.9% in Bloomfield Public Schools to -81.3% in Bernalillo Public Schools, with a statewide average of -56.5%. These findings are consistent with findings from previous years of PAX implementation.

### Spleems per student per hour, New Mexico, school year 2017/18

| District                       | Pre-PAX Implementation |      |          | Post-PAX Implementation |      |          | Count change | Percent change | t-test (>1.95 = significant) |
|--------------------------------|------------------------|------|----------|-------------------------|------|----------|--------------|----------------|------------------------------|
|                                | Mean                   | SD   | Students | Mean                    | SD   | Students |              |                |                              |
| <i>Bernalillo - 4 classes</i>  | 27.2                   | 4.3  | 63       | 5.1                     | 2.0  | 72       | -22.1        | -81.3%         | 9.32                         |
| <i>Bloomfield - 10 classes</i> | 30.3                   | 10.1 | 231      | 26.4                    | 10.5 | 208      | -3.9         | -12.9%         | 0.89                         |
| <i>Chama - 8 classes</i>       | 32.9                   | 11.0 | 92       | 13.4                    | 9.7  | 95       | -19.5        | -59.2%         | 3.74                         |
| <i>Ch'ooshgai - 9 classes</i>  | 17.5                   | 13.9 | 127      | 14.7                    | 10.5 | 110      | -2.8         | -16.0%         | 0.48                         |
| <i>Cobre - 18 classes</i>      | 43.3                   | 17.7 | 312      | 16.0                    | 7.3  | 284      | -27.3        | -63.0%         | 8.24                         |
| <i>Deming - 29 classes</i>     | 24.5                   | 14.9 | 520      | 8.0                     | 8.8  | 481      | -16.5        | -67.3%         | 5.13                         |
| <i>Espanola - 32 classes</i>   | 16.4                   | 11.8 | 466      | 7.4                     | 6.0  | 458      | -9.0         | -54.9%         | 3.89                         |
| <i>Farmington - 42 classes</i> | 31.5                   | 14.6 | 862      | 18.1                    | 11.0 | 822      | -13.4        | -42.5%         | 4.81                         |
| <i>Santa Fe - 45 classes</i>   | 17.4                   | 12.5 | 839      | 6.8                     | 8.9  | 851      | -10.6        | -60.9%         | 5.00                         |
| <i>Socorro - 11 classes</i>    | 26.0                   | 9.0  | 183      | 8.7                     | 3.9  | 185      | -17.3        | -66.5%         | 5.85                         |
| <i>T or C - 6 classes</i>      | 21.7                   | 8.6  | 107      | 13.9                    | 6.4  | 108      | -7.8         | -35.9%         | 1.78                         |
| <i>Tucumcari - 13 classes</i>  | 19.7                   | 9.3  | 243      | 4.3                     | 4.6  | 223      | -15.4        | -78.2%         | 5.36                         |
| <b>Statewide - 227 classes</b> | 26.2                   | 13.2 | 4045     | 11.4                    | 8.2  | 3897     | -14.8        | -56.5%         | 15.23                        |



## *Lessons Learned*

The first full school year of PAX implementation revealed many insights into how to improve the data collection process and ensure data quality. The Qualtrics data collection system was difficult for observers to work with, indicating that this is not the most effective way to collect the data. The frustration levels of observers in using this system has repercussions for accurate data input and attitudes toward data collection. The design of the system also led to human error, as it requested observers to manually calculate Spleems per student per hour, leading to the need for these calculations to be redone to yield more accurate values.

Timing of data collection also proved to be important, as collecting Spleem counts during testing season led to a number of complications including student and teacher stress levels being higher, observers being less available, and more irregular schedules in schools. This did not make for an accurate portrayal of Spleem counts as it would if observed on any given day without the external stress of standardized testing. Spleem counts done at the end of the year tend to be inaccurate because student behaviors tend to escalate in anticipation of spending the summer outside of school in various settings and situations.

This year demonstrated the importance of consistency in Spleem observers and coaching Spleem observers in a rigorous manner. An analysis of the observation data showed that each observer counts Spleems differently. Some observers have a higher tolerance for Spleem behavior than others, and some observers may have only counted disruptive behavior while others counted off-task and non-attentive behaviors. The differences in observer bias is to be expected, but a wide range in this difference can have serious implications for data quality. This year it was reaffirmed that having the same observers in the same classroom for pre- and post-implementation observations is vital for a more accurate portrayal of the impact of PAX in the classroom. Over the duration of the school year, a number of observers left the school site or system, thus those who observed pre-implementation were not available to implement post-implementation Spleem counts in many classrooms included in these analyses.

There also seemed to a significant difference between trained observers and PAX Partners in how Spleems were counted. The observer training is a short training that takes place after the initial teacher training. The observers are identified via their administrator but they have no in-depth training on Spleem counting. PAX Partners, on the other hand, experience a more comprehensive training on how to count Spleems in a consistent and effective way with an on-site visit to a classroom with a trainer. The difference in this training is an important consideration in looking into next year's data collection and the projects intention to have as many as possible Spleem observations coming from PAX Partners. We also intend to provide more rigorous training and follow-up coaching for Spleem counters.

A great deal was learned about the instrument with which Spleem count data are collected. The new PAX Up! App was introduced half-way through the school year, which provided an electronic Spleem counting instrument. Only one partner used the App during post-implementation Spleem counts, tapping a button on a screen for each Spleem counted, while

others continued to utilize the paper method of tallying each Spleem counted on a sheet of paper. An analysis of the post-implementation observations from the observer who used the app showed that their Spleem counts were higher than others and even higher than their own pre-implementation Spleem counts, likely because it is less time consuming to tap a button than to write a tally. This showed that consistency in data collection processes plays a significant role in data quality. For the purposes of this study, data collected through the app was discarded from the final analysis.

There were many complaints regarding the insertion of data into the Qualtrics system. One observer/PAX Partner wrote:

*“Please pass the following feedback along as I am sure the reporting system will be evaluated at some point. I found the reporting system cumbersome and time consuming to use. For me, the drop down menus take more time than typing in the information. In addition, the number line was difficult to maneuver when entering the total number of Spleems. Some numbers do not appear on the number line. It was cumbersome and time consuming to have to individually click on each box to enter the total number of Spleems for each minute. Also, I couldn't check for mistakes after submission.”*

A number of challenges were noted by observers when entering their data. Therefore, in the collection of post data, Coop Consulting, Inc. requested that observers and Partners send the paper version of their Spleem counts to Coop Consulting staff, who then manually entered the data into an Excel sheet for analysis and comparison with the pre-Spleem count data. This was an effort to help support the collection of data and make it easier for observers and PAX Partners to collect and share the data.

### **Social Competence Scale**

The Social Competence Scale is a 25-point survey that teachers complete about each of their students. This instrument measures a student’s pro-social behaviors, emotional self-regulation and academic skills. Each item is a descriptive statement, which is rated by the respondent in regard to the student on a scale from “Not at all” to “Very well”. In theory, the implementation of PAX GBG should significantly increase students’ scores on all of these elements of social competence. The table below categorizes each item of the scale into the subscales measured through this survey. There is also an overall social competence scale score inclusive of all 25 items.

| Academic Behavior Scale               | Emotional Regulation Scale              | Prosocial Skills Scale                |
|---------------------------------------|---|---------------------------------------|
| Functions well even with distractions | Can accept things not going his/her way | Resolves peer problems on his/her own |
| Is a self-starter                     | Copes well with failure                 | Shares materials with others          |
| Works well without adult support      | Expresses needs appropriately           | Cooperates with peers                 |
| Stays on task                         | Thinks before acting                    | Is helpful to others                  |
| Works well in a group                 | Can calm down when excited              | Listens to others' points of view     |
| Pays attention                        | Can wait in line patiently              |                                       |
| Follows teacher's verbal directions   | Aware of effects of behavior on others  | Understands other people's feelings   |
|                                       | Plays by the rules                      | Gives opinions w/o being bossy        |
|                                       | Controls temper                         | Acts friendly toward others           |

Data were collected at the beginning of the school year and at the end of the school year. Teachers were asked to complete the pre-survey on each student after approximately a month into the school year, as they have come to know their students fairly well at this point and can speak to these elements of behavior with some knowledge of who the student is. The teachers were then asked to fill out the survey near the end of the school year.

For pre-implementation data collection, teachers were asked to complete these surveys while they attended a booster training. Those that did not attend a booster training were emailed the survey and asked to complete it. Once the surveys were completed, teachers were asked to email New Mexico PAX Coordinators to confirm their completion. The data system for this survey is Qualtrics, which teachers shared that they found challenging to work with. In particular, the lack of ability to pre-populate data entered for a teacher identifier (i.e., district, school, and name) made it such that this information needed to be entered again for every student survey, which was tedious and time consuming for the teacher. Furthermore, once a teacher completed a survey for each student, there was no indication that the survey was submitted nor that they had completed the task, thus causing multiple entries for the same



student. This led to a lack of efficiency as continual emails were sent out to teacher to complete their surveys even if they had, taking up staff and teacher time and leading to great deal of uncertainty confusion, and resentment toward the project coordinators most regrettably.

Some data collection was incentivized by gathering staff members together to create comradery, increase staff morale, encourage completion of the surveys, and ensure clear communication about the completion of surveys. This event offered snacks and beverages and a door prize for 1-2 teachers who completed all surveys throughout the school year (pre- and post-implementation Social Competency Scales as well as pre- and post-implementation teacher burnout surveys). The number of prizes was determined by the size of each district or school.

### *Analysis/Results*

A total of 5,868 Social Competence Scale surveys were returned in the pre-implementation period, resulting in an approximate response coverage of 49% of students in New Mexico PAX GBG classrooms. In the post-implementation period, 4,136 were returned resulting in an approximate coverage of 35% of students. Post-implementation surveys were not received from Bloomfield Public Schools, and therefore this district is not included in these analyses.

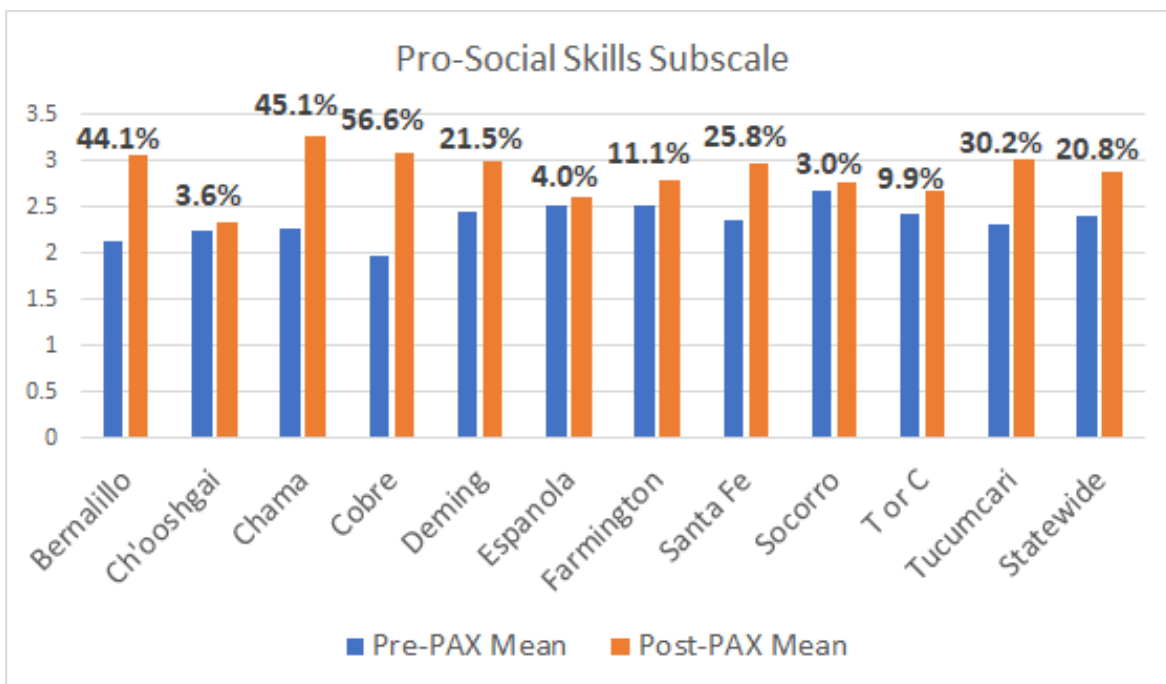
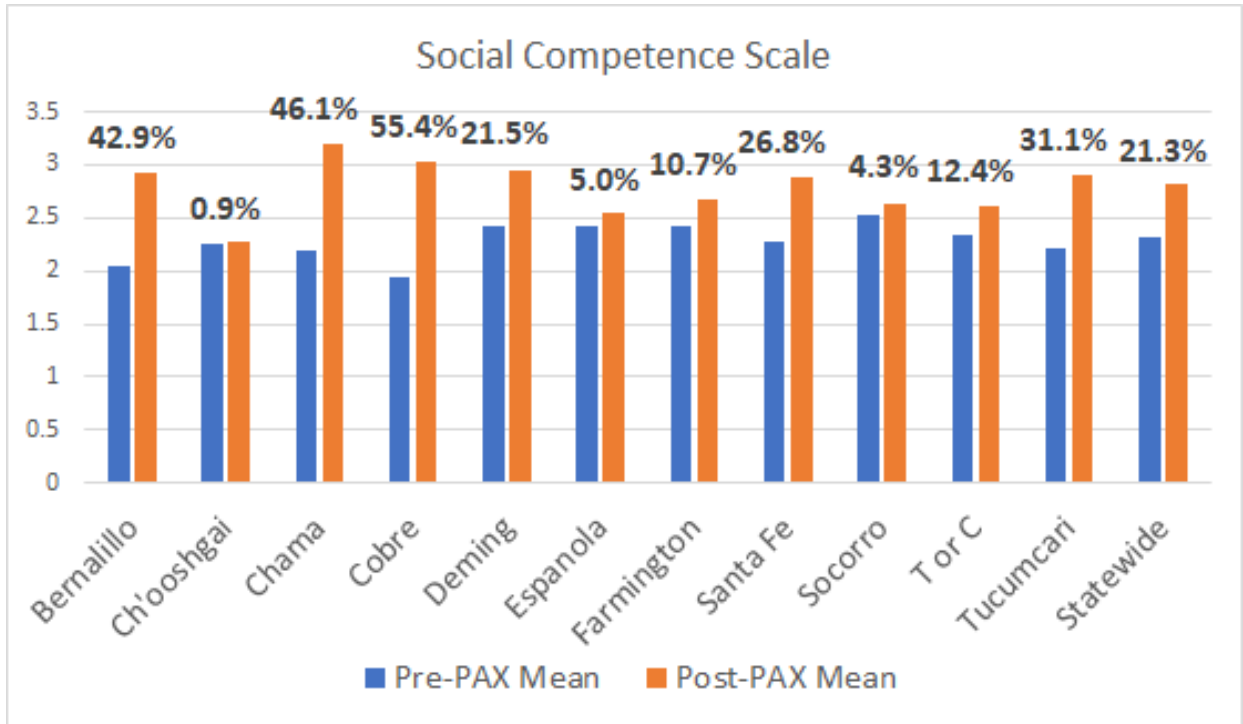
Pre- and post-implementation observations were matched at the student level, such that the pre- and post-implementation datasets contained the exact same students, with any remaining observations being discarded. This was done by creating student identifier containing their district, school, teacher's first and last initial, the student's first and last initial, and their gender. Despite this detailed information, a number of duplicate student IDs were generated that had to be removed. In the pre-implementation dataset, 712 observations were removed due to duplicate student IDs while 287 observations were removed in the post-implementation dataset.

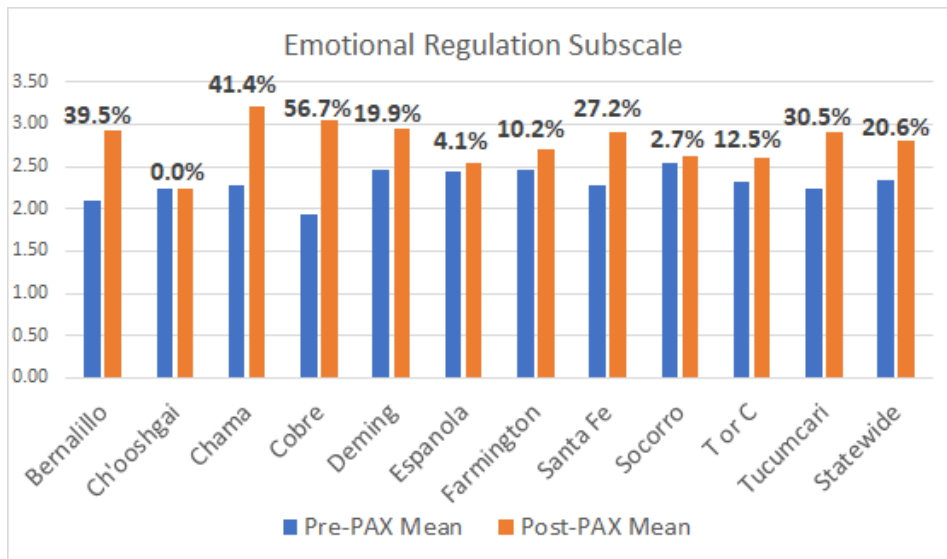
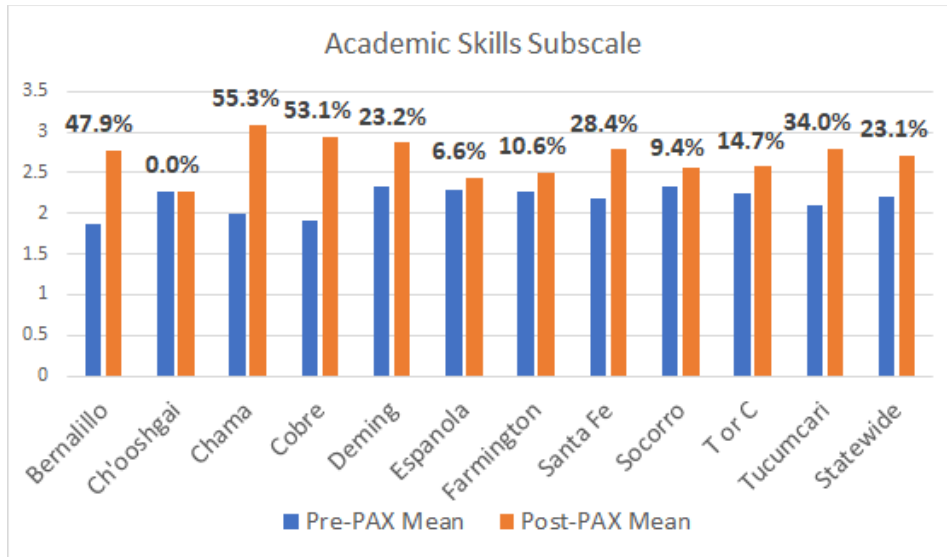
The total number of matched students was 2,714. This matching process resulted in 2,442 pre-implementation observations being discarded and 1,135 post-implementation observations being discarded. The large number of post-implementation surveys that were discarded due to a lack of a matching pre-implementation survey was surprising given that during post-implementation data collection teachers were expressly told not to fill out surveys if they had not completed pre-implementation surveys.

The average score for the overall scale as well as the three subscales and their standard deviations were calculated for each district as well as for the state as a whole. Pre-implementation and post-implementation averages were analyzed using a comparison of means test, allowing for the calculation of whether or not any differences were statistically significant at the 95% confidence level.

The analysis showed either an increase in scores or no change for each of the districts and the state as a whole for all of the scales. These increases were statistically significant at the 95%

confidence level for all districts except for Ch'ooshgai Community School, Espanola Public Schools, and Socorro Consolidated Schools (although the change in the Academic Skills subscale is significant at the 90% confidence level for Socorro Consolidated Schools). The percentage change in the overall Social Competence Scale ranged from 0.9% in Ch'ooshgai Community School to 55.4% in Cobre Consolidated Schools, with a statewide average of 21.3%. These findings are consistent with findings from previous years of PAX implementation.





*Lessons Learned*

A number of lessons were learned in the collection and analysis of these data. First and foremost, the data collection instrument makes a significant difference in the process of obtaining the data. Due to the tedious nature of how one fills out this survey on the Qualtrics system, teachers were resistant and became upset when asked to complete this survey. Most teachers who did not complete the survey asserted that it was due to its tedious nature. This made the data pool smaller and not an accurate representation of students in all PAX classrooms. The data collection event and incentive door prize did not offer enough to motivate teachers to complete these surveys without resistance and frustration. If this survey was less time consuming by allowing teachers to enter their identifying information (district, school, first and last initial) only once instead of for each student survey, the data collected would likely have a much higher response rate and less push back from teachers when collecting these data.

If the electronic data collection process would notify a teacher and the NM PAX Coordinators when the teacher completes all student surveys, the need for ongoing communication and staff time to request surveys be completed would decrease. This year, the coordinators relied on teachers to inform them that they had completed their surveys, but most teachers did not do so and the coordinators emailed teachers repeatedly requesting that they complete their surveys. Additionally, teachers lacked a sense of accomplishment when they did complete their surveys. Many did not know if any of their surveys were submitted, causing them to enter data on the same student repeatedly. A better reporting system would improve this process in next year's implementation.

It was noted that the organism of the classroom is constantly changing. Teachers that may be present and in one role or classroom at the beginning of the year may not be present at the end of the year. This affects the evaluation of PAX GBG because even if a teacher just changed classrooms or grade level, the data they completed for their classroom at the beginning of the year becomes unusable. Furthermore, students move from school to school or from classroom to classroom with great frequency. Teachers do not track who they filled out surveys for at the beginning of the year to the end of the year and their classrooms may have had many iterations in-between. Therefore, many surveys are completed that cannot be used.

The timing of this survey is also important to consider. School testing schedules continue to be a challenge for collecting data that reflects the most accurate assessment of a student's behavior. These tests occur at the end of the year, and this overlap with the standardized testing period affects the post-implementation data. Collecting these data prior to testing season would create a smaller implementation period, but may yield more accurate results. Alternatively, these data could be collected at the very end of the school year - however, this can introduce another source of bias as student behavior may change toward the end of the school year in anticipation of the summer months. It is imperative to find a time in the school year that does not make the data collection vulnerable to validity and reliability issues.

A final lesson learned is that the identifying information used to create student IDs is not sufficiently detailed enough to avoid duplicate IDs. Nearly 1,000 out of 10,004 total observations (or one in ten) had duplicate student IDs and were thus discarded because it was not possible to ensure that pre- and post-implementation observations would be matched with the correct student. The original student ID formula included district, school, teacher's first and last initial, the student's first and last initial, and their gender. The project will likely change the student IDs to be based on the district, school, grade, their teacher's first and last initials of their first name, the first initial of their last name, the first and last initials of the student's first name, the first initial of the student's last name, and their gender. This will substantially reduce the number of duplicate student IDs and allow for more student social competence data to be kept in the final analysis.

## **Maslach Burnout Inventory (MBI)**

The Maslach Burnout Inventory (MBI) Educators Survey is designed to assess burnout in those working in educational institutions who are often required to spend a considerable amount of time working with children and adolescents. This is a 22-item survey with 3 scales that can be derived but no overall scale score can be derived. Items are written in the form of statements about the frequency of personal feelings or attitudes and answered on a 7-point Likert scale ranging from “Never” to “Everyday”.

This survey defines burnout as a psychological syndrome of increased emotional exhaustion, increased depersonalization, and reduced personal accomplishment. Workers who experience burnout often feel their emotional resources are depleted and they can no longer give to themselves on a psychological level. Teachers may also develop negative attitudes that can lead to feeling that their students are somehow deserving of their troubles, and they may come evaluate themselves negatively in regard to working with their students.

This survey was used in this evaluation to assess and determine whether teacher burnout decreases with the implementation of PAX GBG over a school year. Data were collected during booster sessions for pre-implementation data collection, which followed teacher implementation of PAX GBG by one or more months. Ideally these data are collected before PAX GBG implementation by the PAX coordinators. The PAX GBG developer recommended the use of this instrument as initial trainings were being completed and implementation was beginning. Though the project had begun, it was decided to use the measure as much as feasible to determine its value to the project. Post-implementation data was collected toward the end of the year. It is predicted that the subscale of emotional exhaustion and depersonalization will decrease as a result of PAX GBG implementation, while feelings of personal accomplishment will increase.

The table below categorizes each item of the scale into the subscales measured through this survey. There is no combined score for the MBI, only subscale scores.

| <u>Emotional Exhaustion</u>   | <u>Depersonalization</u>  | <u>Personal Accomplishment</u>  |
|---|---|---|
| I feel emotionally drained at work.   | I feel I treat some student as if they were impersonal objects. | I can easily understand how my student feel about things.               |
| I feel used up at the end of the workday.   |   | I deal very effectively with the problems of my students.               |
| I feel fatigued when I get up in the morning and have to face another day on the job. | I've become more callous toward people since I took this job.   | I feel I'm positively influencing other people's lives through my work. |
| Working with people all day is really a strain for me.                                |   | I feel very energetic.  |
| I feel burned out from my work.   | I worry that this job is hardening me emotionally.              | I can easily create a relaxed atmosphere with my students.              |
| I feel frustrated by my job.  |   | I feel exhilarated after working closely with my student.               |
| I feel I am working too hard on my job.   | I don't really care what happens to some students.              | I have accomplished many worthwhile things in this job.                 |
| Working with people directly puts too much stress on me.                              |   | In my work, I deal with emotional problems very calmly.                 |
| I feel like I'm at the end of my rope.  | I feel students blame me for some of their problems.            |   |

*Analysis/Results*

A total of 283 MBI surveys were returned in the pre-implementation period, resulting in an approximate response coverage of 39% of New Mexico PAX GBG teachers. In the post-implementation period, 215 were returned resulting in an approximate coverage of 30% of teachers. Post-implementation surveys were not received from Bloomfield Public Schools, and

therefore this district is not included in these analyses.

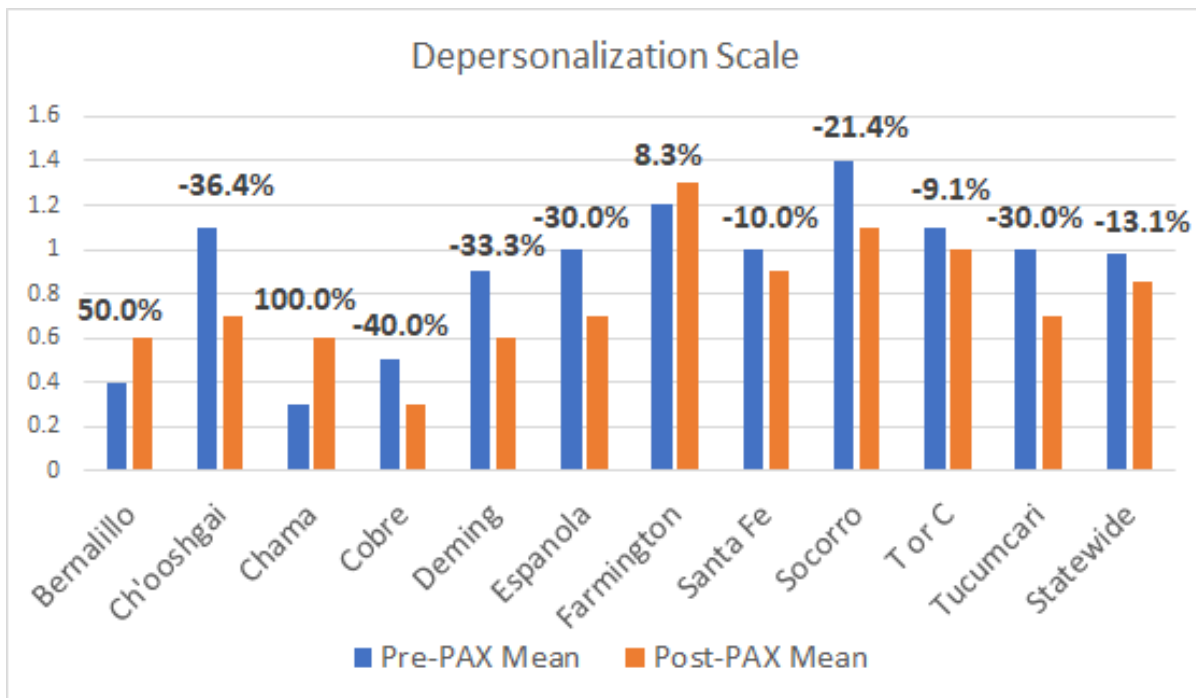
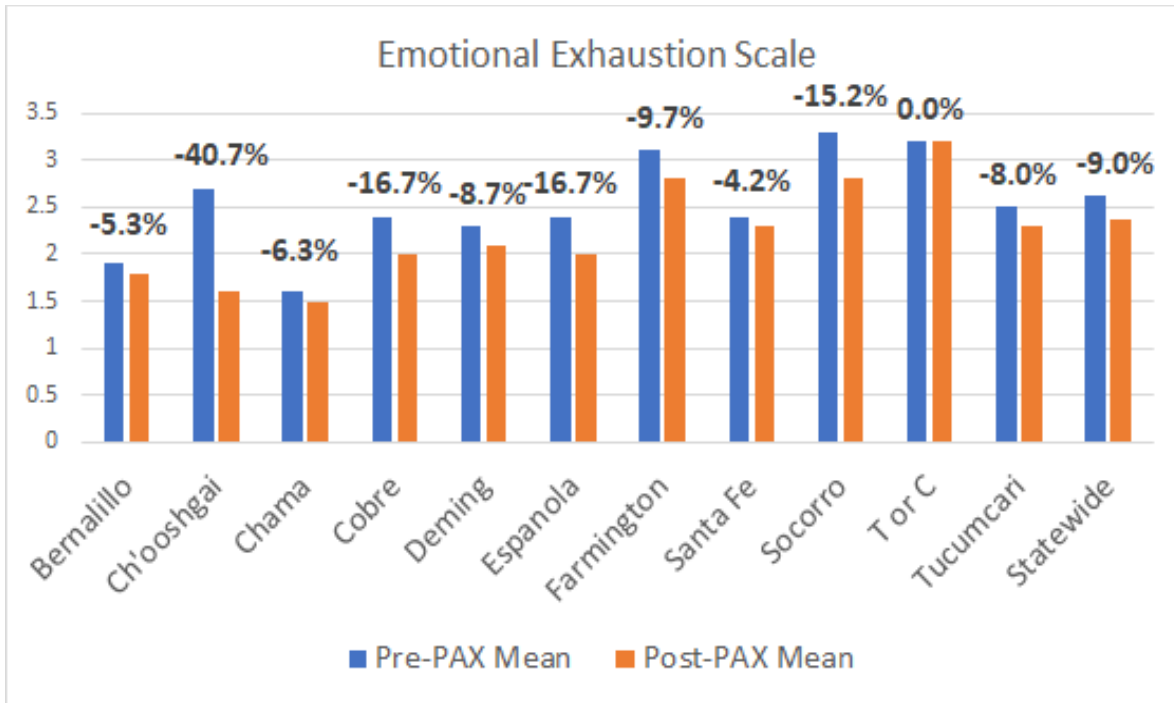
Pre- and post-implementation observations were matched at the teacher level, such that the pre- and post-implementation datasets contained the exact same teachers, with any remaining observations being discarded. Coop Consulting staff manually matched teacher surveys by district, school, grade, and first and last name. The total number of matched teacher surveys was 176. This matching process resulted in 109 pre-implementation observations being discarded and 39 post-implementation observations being discarded.

The average score for the three scales as well as their standard deviations were calculated for each district as well as for the state as a whole. Pre-implementation and post-implementation averages were analyzed using a comparison of means test, allowing for the calculation of whether or not any differences were statistically significant at the 95% confidence level.

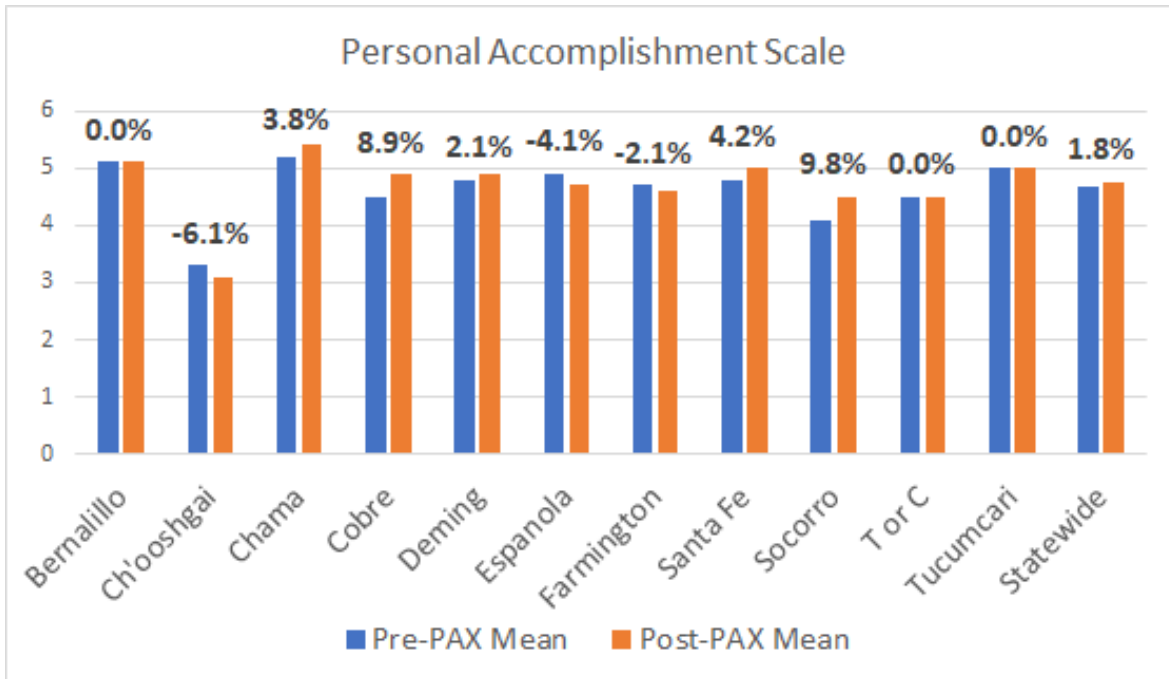
The analysis showed either a decrease or no change in scale scores for each of the districts and the state as a whole for the Emotional Exhaustion scale. However, these decreases were not statistically significant at the 95% confidence level for any of the districts except for Ch'ooshgai Community School, which should still be interpreted with caution due to its small sample size. The percentage change in the Emotional Exhaustion Scale ranged from 0.0% in Truth or Consequences Municipal Schools to -40.7% in Ch'ooshgai Community School. The statewide average of -9.0% was significant at the 90% confidence level.

The two other depersonalization and personal accomplishment scales showed inconsistent results across districts but the percentage changes statewide did go in the expected direction. None of the results were statistically significant, and included increases in the depersonalization scale (which is expected to decrease) and decreases in the personal accomplishment scale (which is expected to increase).

It is hypothesized that the weak though promising (in the Emotional Exhaustion scale) findings are due to small sample sizes (the average district sample size being 16, with one as low as six), the possibility that the implementation of PAX GBG may be unrelated to some of these aspects of teacher burnout, and that the timing of survey implementation likely tainted the results.







### *Lessons Learned*

The MBI tool did not come available on the Qualtrics system until October 2017. Therefore, data collected for pre-implementation was not truly collected at a time prior to implementation, as October is about two months into the academic year. Pre-implementation data were collected as late as February 2018 and post-implementation data were collected as early as March 2018, essentially making the data collection a rolling process over the school year. In the next school year, it will be critical to set short (i.e., one or two month) pre- and post-implementation data collection periods to improve the quality and accuracy of these data.

Most MBI pre-implementation data were collected from teachers during the time of the booster trainings. It was easier to track whether most teachers completed the survey because it was collected in this manner. However, this took up time during the session that could have been better utilized to cover the additional implementation strategies. Teachers who did not attend a booster training were emailed and asked to complete the survey, and few responded to the request, creating uncertainty of which teachers completed or did not complete the MBI. The Qualtrics system of data entry does not notify the teacher nor the PAX coordinators about the completion of the surveys. If a reporting system such as this could be implemented, this would be of great benefit to the project in tracking and encouraging the completion of this survey.

Post-implementation data were collected at the end of the academic year. The timing of the post data collection was not ideal, as this fell at the time of testing season. Testing season is one of the most stressful times of the academic year for teachers and students. With regard to the future use of this survey, timing will be an important factor to get a accurate assessment of

teacher burnout as correlated to the use of PAX GBG.

### **PAX Purrfect Fidelity Survey**

The PAX Purrfect Fidelity Survey was created by PAXIS Institute and was used in this evaluation to assess the frequency with which teachers implemented the 11 elements of PAX GBG. This was introduced to PAX Partners as a tool to rate and assist teachers in their implementation. Initially, this instrument was to be completed by PAX Partners. Due to the low number of PAX Partners in each district and time constraints on the Partners with the various roles they hold in the schools, this task was not possible. The surveys were slightly adapted to become self-administered surveys that teachers were asked to complete to assess their own level of implementation.

Teachers were requested to fill out this scale between January and February of 2018, with the encouragement and oversight of the PAX Partners for each district. Many Partners had teachers complete these surveys during staff meetings or during PLCs, others just distributed the surveys via email or school site mailboxes and collected the surveys for each teacher. PAX Partners collected the surveys and either input them into a SurveyMonkey link or sent all paper surveys to the NM PAX Coordinators at Coop Consulting. Some teachers were to asked complete the survey via email, and did so directly by visiting the SurveyMonkey site and completing it online.

The scale has a total of 40 items, with three to four items per Kernel. The rating is a 0-5 Likert scale, with 0 indicating “not using” and 5 indicating “using daily”. The scores per Kernel is averaged to a rating of fidelity on each PAX element.

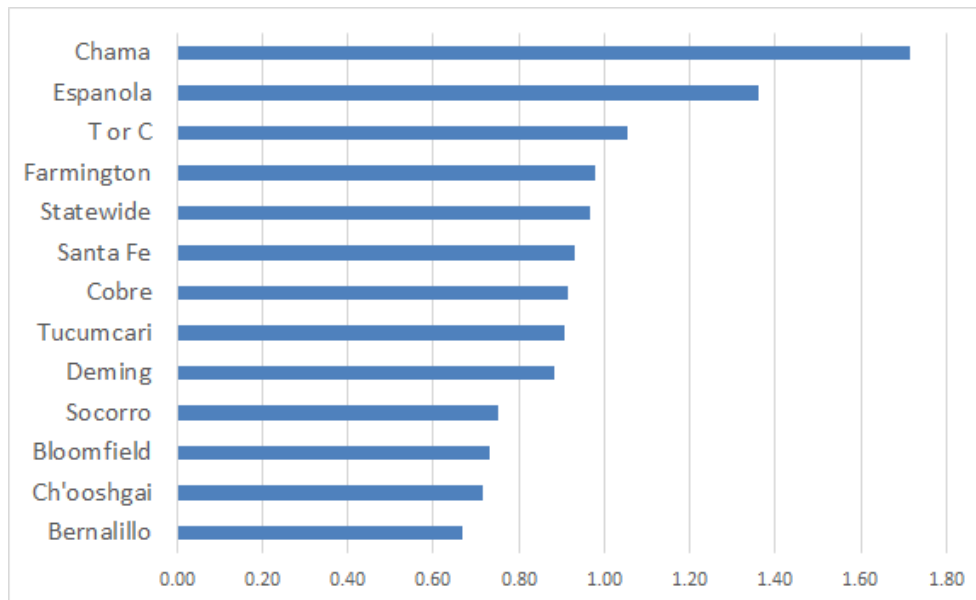
#### *Analysis/Results*

The results of fidelity self-assessments were used in this evaluation in a variety of ways. First, discussions among Coop Consulting staff led to definitions of high, medium, and low fidelity that were used to categorize respondents. The definitions of these categories are as follows:

- High Fidelity - Seven or more of the PAX elements are used weekly or daily (defined as an element scale average of 4 or above)
- Medium Fidelity - Between four and six of the PAX elements are used weekly or daily
- Low Fidelity - Three or less of the PAX elements are used weekly or daily

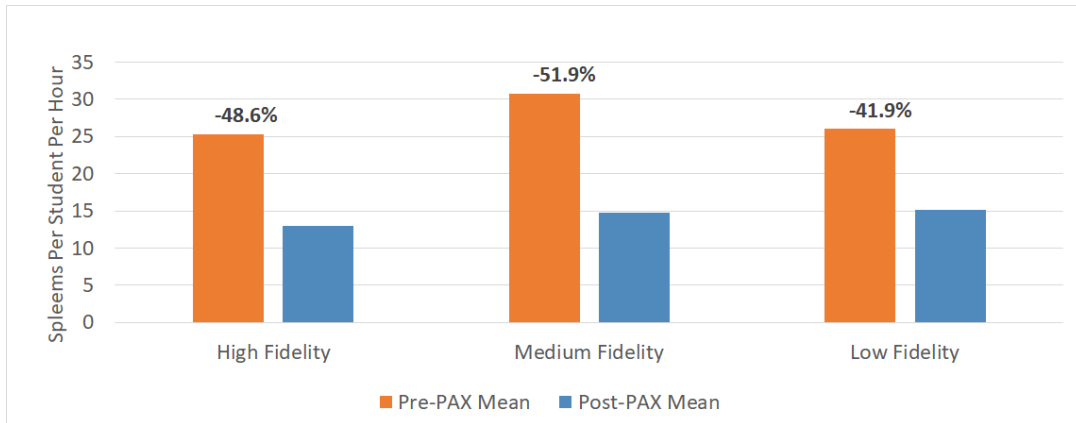
This categorical variable was used along with a continuous variable defined as an average of the 11-element scale scores in the following analyses. Data were analyzed across districts to compare which districts are implementing with more or less fidelity on average. Furthermore, fidelity data were matched with data from the other three evaluation instruments to examine whether fidelity impacted these results.

| District          | Average | SD   | Distribution of teachers by fidelity |        |     | Teachers |
|-------------------|---------|------|--------------------------------------|--------|-----|----------|
|                   |         |      | High                                 | Medium | Low |          |
| <i>Bernalillo</i> | 0.67    | 0.58 | 0%                                   | 67%    | 33% | 3        |
| <i>Bloomfield</i> | 0.73    | 0.88 | 27%                                  | 20%    | 53% | 15       |
| <i>Chama</i>      | 1.71    | 0.76 | 86%                                  | 0%     | 14% | 7        |
| <i>Ch'ooshgai</i> | 0.71    | 0.76 | 14%                                  | 43%    | 43% | 7        |
| <i>Cobre</i>      | 0.91    | 0.82 | 29%                                  | 34%    | 37% | 35       |
| <i>Deming</i>     | 0.88    | 0.88 | 32%                                  | 24%    | 44% | 34       |
| <i>Espanola</i>   | 1.36    | 0.86 | 60%                                  | 16%    | 24% | 25       |
| <i>Farmington</i> | 0.98    | 0.88 | 37%                                  | 24%    | 39% | 49       |
| <i>Santa Fe</i>   | 0.93    | 0.81 | 29%                                  | 34%    | 36% | 58       |
| <i>Socorro</i>    | 0.75    | 0.85 | 25%                                  | 25%    | 50% | 20       |
| <i>T or C</i>     | 1.06    | 0.75 | 31%                                  | 44%    | 25% | 36       |
| <i>Tucumcari</i>  | 0.90    | 0.89 | 33%                                  | 24%    | 43% | 21       |
| <b>Statewide</b>  | 0.97    | 0.83 | 37%                                  | 29%    | 34% | 310      |



Data were analyzed by district using the categorical variable in order to aid in the interpretation of the results. In the table and chart above, 0 represents that teachers on average implemented with low fidelity, 1 represents average medium fidelity, and 2 represents average high fidelity. The statewide average of 0.97 closely approximates to a statewide average of 1, which can be interpreted as the average New Mexico PAX teacher is implementing with medium fidelity. The district with the highest fidelity average was Chama Valley Independent Schools with a score of 1.71, in which 86% of teachers were implementing with high fidelity. The district with the lowest fidelity average was Bernalillo Public Schools with a score of 0.67, in which 0% of teachers were implementing with high fidelity.

Fidelity data were matched with pre- and post-implementation Spleem count data. Due to a lack of consistent teacher identifiers across the instruments, these data were matched manually by Coop Consulting staff. A total of 117 teachers/classrooms had complete Spleem count and fidelity data. When examining the pre- and post-implementation percentage change in Spleem counts across the three fidelity categories, there were no consistent trends (i.e., those who implemented with higher fidelity did not have a significantly greater percentage change than those who implemented with medium or low fidelity).



Further analysis using simple linear regression did not show significant results for the overall fidelity scale average regressed on Spleem count change as the dependent variable ( $p=0.78$ ). None of the individual PAX element scales produced significant findings using the same technique. In summary, no correlation between implementing PAX with fidelity, as defined by the PAX Purrfect Fidelity Scale, and Spleem count change was found.

Fidelity data were also matched with pre- and post-implementation teacher burnout data from the Maslach Burnout Inventory. Again, due to a lack of consistent teacher identifiers across the instruments, these data were matched manually by Coop Consulting staff. A total of 123 teachers had complete teacher burnout and fidelity data. When examining the pre- and post-implementation percentage change in teacher burnout scale scores across the three fidelity categories, there were again no consistent trends found.

Further analysis using linear regression did not show significant results for the overall fidelity scale average regressed on the Depersonalization Scale and the Personal Accomplishment Scale as the dependent variable ( $p=0.33$  and  $p=0.24$ , respectively).

Regression analyses did find a modest but statistically significant negative relationship between the overall fidelity scale average and the Emotional Exhaustion Scale (Coefficient  $-.263$ ,  $p=0.009$ ). This can be interpreted as every one point increase in the 6-point fidelity scale being associated with a .26 decrease in the 6-point Emotional Exhaustion Scale. This relationship held after years of teaching experience (which was included in the MBI survey) was added to the regression model (Coefficient  $-.292$ ,  $p=0.004$ ), indicating that the effect of PAX fidelity on

emotional exhaustion is unrelated to years of teaching experience.

Some of the individual PAX element scales also showed significant relationships when regressed on the Emotional Exhaustion Scale. PAX Vision, PAX Quiet, PAX Voice, PAX Hands, and PAX OK/Not OK all showed statistically significant negative relationships with emotional exhaustion. This is an especially interesting finding, in that one of these five PAX elements identifies acceptable and unacceptable student behavior, while the other four “direct” and “shape” that behavior. This finding could be especially helpful in improving the quality and succinctness of the fidelity survey for next year’s implementation. In summary, no correlation between implementing PAX with fidelity, as defined by the PAX Purrfect Fidelity Scale, and depersonalization or personal accomplishment was found, but a correlation was found between overall fidelity and some individual PAX elements and emotional exhaustion.

The student social competence data were aggregated to the classroom level, giving an average pre-implementation and post-implementation scale score for each classroom. The pre- and post-implementation data were matched using a teacher identifier consisting of the district, school, grade, and teacher’s first and last name, as these were the only teacher-level data collected by this instrument. Due to this limited information, there may have been a small number of student-level observations that were aggregated together where there were two teachers with the same initials in the same grade at the same school.

There were 368 pre-implementation classroom averages and 271 post-implementation classroom averages created after the data were aggregated at the classroom level. There were 207 classrooms matched with pre- and post-implementation data, with 161 pre-implementation classroom averages being discarded and 64 post-implementation classroom average being discarded.

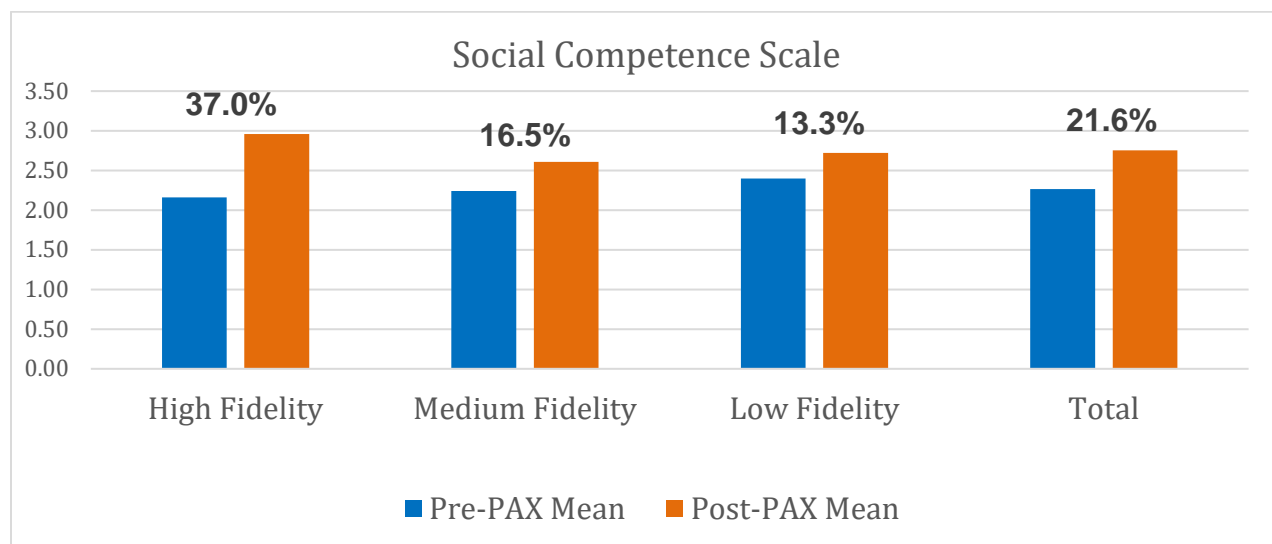
These aggregated data were linked to the PAX Purrfect Fidelity Check to examine the relationship between PAX implementation fidelity and changes in students’ Social Competence Scale scores. Due to a lack of consistent teacher identifiers across the instruments, these data were matched manually by Coop Consulting staff. Of the 207 pairs of Social Competence Scale classroom averages, 133 (64%) had matching fidelity assessments.

The analysis showed an increase in Social Competence Scale scores and subscale scores for each of the three fidelity categories. These increases were statistically significant at the 95% confidence level and were largest among those who implemented with high fidelity. Percentage changes in scale scores ranged from 37.0% to 39.5% among those who implemented PAX with high fidelity, and between 12.7% and 14.2% among those who implemented PAX with low fidelity.

Further analysis using simple linear regression showed significant results for the overall fidelity scale average regressed on the Social Competence Scale as the dependent variable (Coefficient .211,  $p=0.000$ ). This can be interpreted as every one-point increase in the 6-point fidelity scale being associated with a .21 increase in the 5-point Social Competence Scale average for a

classroom. Regressions with each of the subscales also showed statistically significant correlations with the fidelity scale average.

Some of the individual PAX GBG element scales also showed significant relationships when regressed on the Social Competence Scale. PAX Vision, PAX Leader, PAX Prizes, PAX Hands, PAX OK/Not OK, and PAX Game all showed statistically significant negative relationships with students' social competence. This is an interesting finding because two of the elements are about setting expectations and the others are about meeting those expectations. This finding could be especially helpful in improving the quality and succinctness of the fidelity survey for next year's implementation. In summary, a correlation was found between overall fidelity and some individual PAX elements and the Social Competence Scale.



### *Lessons Learned*

The use of the fidelity scale for the first time this year brought up an important question - does this scale actually measure what the project thinks, in theory, that it measures? This is the one data instrument used that had not been researched and is designed as a rubric for Partners to utilize in their teacher coaching to support the use of all the Kernels. Responses to what, this year, was used as a self-assessment indicate the frequency with which teachers use different PAX elements, which is certainly related to fidelity but may not fully capture the entire concept of what the project defines as PAX GBG fidelity. In the future, it would be more helpful to study whether the data collection instrument used for fidelity accurately measures all of the dimensions of implementation fidelity envisioned by the PAX GBG developer.

This self-survey format does not offer an objective look at fidelity as attribution bias is likely a factor. Teachers may fill out this survey in order to appear in a certain way, others may not fill out the survey at all in fear of appearing "bad". Next year, it will be important to have PAX Partners complete the fidelity surveys with a more objective point of view, thus increasing the reliability of these data.

As it was piloted in this round of evaluation, the hope for next year's implementation evaluation is to again look into how fidelity relates to Spleem counts, teacher burnout levels, and changes in student social competency. Examining these correlations is important for identifying to what degree PAX GBG has a greater impact on teachers and students when practiced with high fidelity. It is important that the fidelity scale measures what it intends to measure, and that is is collected in a reliable way.

Through the process of correlating fidelity with the other three evaluation instruments, consistent teacher identifiers across all instruments was identified as a critical need for next year's implementation evaluation. Inconsistencies in how teachers were identified (i.e., by first and last initial for the Social Competence Survey but by full first and last name in the fidelity survey) led to matching datasets only being possible by having a Coop Consulting staff member manually connect each line of each dataset. This could easily be avoided if consistent teacher identifiers are used across all instruments. Coop Consulting, Inc. will consider developing this identifier using the district, school, grade, the first and last initials of their first name, the first initial of their last name, and their gender.

### **Testimonial Interviews**

Testimonials were collected by teachers practicing PAX GBG. One individual in each school district was identified to be interviewed and asked a series of questions regarding their implementation process and practice.

Testimonial interviews were done at two different times of year, once at the time of boosters, when teachers were randomly selected to participate in a short interview after the session. These interviews were conducted face-to-face. At the end of the school year, other teachers who were known to be implementing PAX GBG in their classrooms well as identified by Partners, were emailed about their participation in an testimonial interview. They were then asked to sign up for a time to have a phone call or zoom video call to conduct the interview. All interviews took approximately 20-30 minutes. Not everyone who was selected for a interview participated due to scheduling conflicts near the end of the school year.

### *Analysis/Results*

Even within a short implementation period, teachers have noted various significant differences in their classrooms. This includes differences in individual students, overall classroom environment and personal stress levels.

When asked to compare what her classroom was like before and after implementing PAX:

*"Hellions! (laugh). Their behavior was really, what's the word, not very disciplined, touching each other, not raising hand, disrespectful to each other, opinions thrown out without realizing*

*they will hurt someone, they have been having trouble with this since last year too, this is the group I have now.*

*After implementing, they love the harmonica, I have one kid that has to have a reason for everything, "why why why why?" He wants to know why. They were being yelled at a lot last year... they are used to it, yelling makes them done [sic]. The harmonica gets their attention without yelling. A couple kids want to have the last word, five kids who ignore or want to be the last one to put their peace fingers up. I wait and wait and wait. Have to wait till everyone is quiet, it must be used correctly, it effects me too...Reinforcing is important.*

*It's easy, have the process but it's just about doing it, and taking the time to implement.*

*It's all about implementing it. If you believe in it, it will work, if not, it's not going to work. You HAVE TO BELIEVE IN IT."*

*- Fifth grade teacher, Deming Public Schools, within two-and-a-half months of implementation*

*"Really helping, I came in as a doubter. I love the harmonica, it is really working for my class. I can see a difference in their focus, they are still kids, but it's giving me more teaching time.*

*I noticed that with the harmonica, I am talking lower, it's creating a calming effect on the class. I am more laid back with it, it's a softer environment, different with PAX, I have a soft voice and with PAX they can hear me.*

*I have taught for many years, been through a lot of behavior programs, this one makes most sense. Most come and go, and this one I have more hope in than any of them."*

*-Third grade teacher, Deming Public Schools after two months of implementation*

*"The students definitely know more about self-regulations, not in those terms, but they know what the expectations are, know the difference between Spleem and go PAX, they whisper to each other. Before PAX, every student had their own expectation, now it's a common expectation."*

*-First/Second grade teacher, Socorro Consolidated Schools, after five months of implementing*

After a year or more of implementation, there is a real sense of teacher enthusiasm about the benefits of PAX in their classroom, across the schools, and on their teaching style.



*“I love the games, it was really interesting to see, they really could calm down from those exciting games.”*

-First Grade Teacher in Bernalillo Public Schools, one year of implementation

*“This year, I felt like my stress level wasn’t as high as the year before. I think PAX does help with my stress level. Our school isn’t that big and everyone is using it. If I blow the harmonica during lunch in the cafeteria to let them know something, everyone was already using it, so they all knew what to do. In the beginning when my pregnancy wasn’t making me feel well, I didn’t want to speak up or be too loud, so the harmonica really helped and all the kids responded.”*

-First grade teacher in Chama Valley Independent Schools, 2 years of implementation

*“I really like how we focus on the positives and not the negatives and that is something that we, as adults, sometimes need to be reminded. Sometime we are so stressed out, we forget and we need to remember to focus on the positive. That is one thing I really admire about this program.”*

-First grade teacher in Chama Valley Independent Schools, two years of implementation

*“It saves me a lot of words flowing out of my mouth and I don’t have to say ‘you are having a Spleem because you didn’t follow my directions,’ you just say, ‘someone at table 2 had a Spleem.’ It is a lot easier to let this flow out of my mouth. Conscious Discipline didn’t have anything like that, you just kind of were what you were. Kids need those little breaks.”*

-Third grade teacher in Farmington Municipal Schools, two-and-a-half years of implementation

*“This year I felt like we really needed the PAX Game at the beginning. The team before me was big on using PAX so the kids that came to me from 2<sup>nd</sup> to 3<sup>rd</sup> grade were well versed and knew a lot about PAX already and we thrived off of that.*

*The group of kids this year is good, if we didn’t do a PAX game, we wouldn’t make it through a math lesson at all.”*

-Third grade teacher in Farmington Municipal Schools, two-and-a-half years of implementation

As PAX GBG continues to develop, teachers who have been implementing PAX for some time are noticing differences as PAX enhances implementation tools and practices. For example, this teacher comments on having a PAX Partner in the building and the use of the PAX Up! App, both seemed to reveal a great deal of benefits for the implementation process, offering teachers support and guidance in their PAX implementation process:

*“I really liked our PAX Partner. She was super helpful, giving tips and it was nice having her there, available without having to contact you guys. Or, if I didn’t understand something in the PAX guide, she would help. I really liked that this year. The year before we didn’t have it. I also really like the App because we didn’t have it before and counting Spleems was not as easy. I like it when I am counting Spleems and I don’t have to go up to the board and write them down. I like the app because then I had the groups in my phone and would just click and count Spleems.”*

-First grade teacher in Chama Valley Independent Schools, two years of implementation

The testimonial below is from a third grade teacher in the Santa Fe Public School district, she is one of the teachers who is implementing with fidelity and consistency. She was trained in the Spring 2017 term, and has been practicing PAX GBG in her classroom since she was trained. This is her first full year of implementation. She is dedicated to the practice of PAX in her classroom and truly sees the difference it makes.

*“[At] the beginning of the year I had several challenging students who struggled with self regulation issues. By the end of the year my students were highly motivated and rarely needed redirection.*

*Spleem counts [were] 27 in fall 2017, [and we had a total of only] six in spring 2018.*

*I gained instructional time, more time for students to be actively learning. I had zero behavioral office referrals this year. The environment in my classroom evolved into a safe and prosocial learning space. Students’ self perception and confidence increased (one student grew from being unwilling to write one word to writing full essays). Students took complete ownership of their behaviors and classroom environment by advising rising 3<sup>rd</sup> graders that the way to succeed is to “know your vision.”*

*Last year my stress level was off the charts because of the very challenging behaviors of my students, several had special behavioral needs. Even PAX did not completely turn around the environment. It was difficult to implement PAX with fidelity because our school continued to use both PAX and the color change system which are inconsistent systems. This year, our school stopped using the color change system and my stress level was reduced in the classroom because using PAX with fidelity was very successful.*

*The kids started to change how they spoke to each other and they started helping each other to make better choices to help one another.*

*PAX is a great system because it puts in place best practices that we as teachers already know and makes teaching kids with trauma possible.”*

In November 2017, New Mexico’s Indigenous PAX began with the Ch’ooshgai Community School Community School on the Navajo Reservation. This final testimonial below is also from a third grade teacher, from this small Indigenous community. She is one of the teachers who is implementing with fidelity and consistency. Even though she only started implementing mid-way through this past school year, she has been able to see the benefits for her and her students in the classroom. This is a powerful testimony to how big a difference PAX GBG can make, even in a short time, when a teacher fully embraces the practice.

*“Right after training, introduced it, vision first, [we did it] all together. It’s very nice, see more, see less, that’s really one of our problems in the classroom. This really helps me, as I had so many students with behavior issues. [I] especially [found] the harmonica [helpful]. Every morning, [I refer to] the vision, this really helps me, they are reminded what to do inside a classroom, instead of acting out or showing bad behavior, [this is] especially [relevant for] my boys. I am not fully doing everything, but [I am doing] the stix, the vision, tootles, and the wacky prize. Next school year, I can really fully implement all these things. It’s really a huge difference when I use the PAX Good Behavior Game.*

*Very huge difference, big difference. I use harmonica at times when they are in line. This was also my problem when they had to go to library and cafeteria, it takes time for them to line up. Doing the PAX line, I use timer and harmonica and we practiced it many times when I introduced [it]. We practiced it several times. We beat the timer!*

*Big changes. I write it on the board, what is the meaning of a Spleem, rather than using misbehaving. Sometimes, students recognize the Spleem. Much less Spleems now. Before PAX, there were a lot.*

*More instructional time, when talking is happening, I use the harmonica and the stix, my students are excited, they love it, they are all awake! When I hold the stix [cup], they start getting excited and giggle when I call someone. For Tootles, we use it one to two times a week. I let them know when we will do tootles, they write positive things, they get really excited. This also helps with their spelling and grammar.*

*Before, when they refused to do their work, few of them aren’t interested [in doing] their work, I would refer them to the office. Before, I had lots of incident reports. But now, most of the time, there are zero incident reports.*

*Before, I so overreacted, sometimes so impatient, if students were disruptive. After PAX, I just use my harmonica, the vision and sometimes the wacky prize. They do dance steps. They like sleeping under desk, sit backward in chair, they love them, we only use a few, but they love them. If I tell them their expectations and they meet them, we get to dance.*

When asked about the teacher’s stress level:

*“Oh my! That’s really a big change. Before PAX, I really got mad, especially for those that are really misbehaving, some really talked back. But after PAX, there is really less, there is still a few, but there is less stress, compared to before PAX. I don’t need to talk and remind them all the time, that was the problem. I just use the harmonica and they focus.*

*Super easy [to implement]. Honestly, I am not fully implementing. Vision, that’s what I use and posting posters for reminders. And Stix, and some wacky prizes and tootles and Spleems. There is really a big difference.*

*I am really so amazed with this PAX, I really love this program, I am so excited for next school year when I get to introduce it at the beginning of the year.*

*I highly recommend PAX for all the teachers, it's really a big difference."*

These testimonials reveal how the implementation of PAX can make a big difference, give teachers a sense of accomplishment, decrease stress levels, and improve students' ability to learn and practice self-regulation.

## **Plans for the Future**

The goal is to sustain PAX GBG implementation across the current 12 districts and communities in the 2018-2019 school year. This includes accounting for turnover staff to attend trainings offered at the beginning of the school year. This will support those schools that are practicing school-wide implementation in maintaining their program across all teachers and staff in their building.

Within current funding, there is the possibility that one or two additional districts that can prioritize one site to begin PAX GBG will be added to the implementation initiative. A few Indigenous communities will also join the existing cohort to implement PAX GBG in Tribal schools. The recruitment process for these additional schools and/or districts is underway. The ability of these additional communities to utilize PAX will be determined by a number of factors including funding and how each individual community evaluates the benefits and requirements of the program.

There is a significant focus on understanding multiple sources of data that can contribute to an understanding of the efficacy of PAX GBG in New Mexico school classrooms. In the coming year, expansion of the evaluation of PAX GBG will be a primary focus. This includes a more in-depth look at the impact of PAX, not only on student classroom behavior, student social competence, teacher burnout, and fidelity, but also the impact of PAX GBG on attendance, grade point averages, state proficiency tests, and office referrals for behavior issues. This will offer a broader picture and greater understanding of how PAX GBG influences all aspects of the educational environment.

An important indicator of the success of a school or district in implementing PAX has been how much support was provided to a district. Those districts with active PAX Partners or those that utilized the PLC or Site Visit offerings had a larger positive influence on all data points. The plan for the 2018-2019 school year is to promote and advocate to provide every possible support element to all districts, including supporting PAX Partners to go into classrooms to coach and mentor teachers, further coaching via site visits and PLCs, and administrator trainings. With these supports in place, PAX GBG can thrive in all districts and yield better results across the state.

# Appendix A. Spleem Count Observation Form

Download at  
<https://bit.ly/2DAXV10P1>

## Spleems Observation Form

School/Classroom Site: \_\_\_\_\_ Date: \_\_\_\_\_ Observer: \_\_\_\_\_

Brief Description of Activity: \_\_\_\_\_

**Instructions:** Observe the group every minute for fifteen minutes. During each minute, tally the number of Spleems that occur. After the fifteen minutes, complete the rest of the form and graph the results, to see trends and improve the Game.

| ONE - MINUTE INTERVALS   |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |
|--|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|
|  | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| Highest number of students in the group  |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |
| Tally of Spleems in the minute (make hash /// marks)   |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |
| Total number of Spleems in the minute (add up the hash marks)  |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |
| 1. Total the number of Spleems in the 15 minutes   |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |
| 2. Divide the total Spleems (A) by the number of students in the group.  |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |
| 3. Multiply #2 by 4 to express the rate of disruptions per hour per student. Use this rate per hour for the graph in Chapter 5, which is also in the reproducible. These may also be graphed in Excel. |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |

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### Notes:



## Social Competence Scale – T

INSTRUCTIONS: Please rate each of the listed behaviors according to how well it describes this child.

|   | Very Well |   |   |   | Well |   |   |   | Moderately Well |   |   |   | A Little |   |   |   | Not At All |   |   |   |
|---|-----------|---|---|---|------|---|---|---|-----------------|---|---|---|----------|---|---|---|------------|---|---|---|
|   | 0         | 1 | 2 | 3 | 0    | 1 | 2 | 3 | 0               | 1 | 2 | 3 | 0        | 1 | 2 | 3 | 0          | 1 | 2 | 3 |
| 1. Functions well even with distractions                  | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 2. Can accept things not going his/her way                | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 3. Copes well with failure                                | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 4. Is a self-starter                                      | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 5. Work/plays well without adult support                  | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 6. Accepts legitimate imposed limits                      | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 7. Expresses needs and feelings appropriately             | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 8. Thinks before acting                                   | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 9. Resolves peer problems on his/her own                  | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 10. Stays on task   | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 11. Can calm down when excited or all wound up            | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 12. Can wait in line patiently when necessary             | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 13. Very good at understanding other people's feelings    | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 14. Is aware of the effect of his/her behavior on others  | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 15. Works well in a group                                 | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 16. Plays by the rules of the game                        | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 17. Pays attention  | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 18. Controls temper when there is a disagreement          | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 19. Shares materials with others                          | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 20. Cooperates with peers without prompting (PRO/COM)     | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 21. Follows teacher's verbal directions                   | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 22. Is helpful to others                                  | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 23. Listens to others' points of view                     | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 24. Can give suggestions and opinions without being bossy | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |
| 25. Acts friendly toward others                           | 0         | 1 | 2 | 3 | 4    | 0 | 1 | 2 | 3               | 4 | 0 | 1 | 2        | 3 | 4 | 0 | 1          | 2 | 3 | 4 |

## Appendix C. Maslach Burnout Inventory: Teacher Stress Survey

*Christina Maslach • Susan E. Jackson • Richard L. Schwab*

### **Educators Survey**

The purpose of this survey is to discover how educators view their job and the people with whom they work closely.

On the following page there are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way *about your job*. If you have *never* had this feeling, write a "0" (zero) in the space before the statement. If you have had this feeling, indicate *how often* you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. An example is shown below.

#### **Example:**

| HOW OFTEN: | 0     | 1                                | 2                          | 3                         | 4                 | 5                        | 6            |
|------------|-------|----------------------------------|----------------------------|---------------------------|-------------------|--------------------------|--------------|
|            | Never | A few times<br>a year<br>or less | Once a<br>month<br>or less | A few<br>times a<br>month | Once<br>a<br>week | A few<br>times<br>a week | Every<br>day |

#### **HOW OFTEN**

0 - 6

Statement:

\_\_\_\_\_ I feel depressed at work.

If you *never* feel depressed at work, you would write the number "0" (zero) under the heading "HOW OFTEN." If you *rarely* feel depressed at work (a few times a year or less), you would write the number "1." If your feelings of depression are fairly frequent (a few times a week, but not daily) you would write a "5."



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## Appendix D. Purrfect Survey Fidelity Scale

## PAX Purrfect Scale/Fidelity Check

You can use this PAX Progress Self-Assessment, the PAX Purrfect Rubric, to help fine-tune your PAX implementation in the classroom.

This is a 6-point scale (0 being not using at all or not introduced to your classroom yet and 5 being using on a daily basis).

Please rate yourself honestly. This will be used as a tool to help support you in implementation, not to evaluate you. We hope this can help us see what further training we can offer, if any. It will also help us assess if PAX is being used consistently, accurately, and with validity, as well as to identify any elements that need PAX Partner modeling or strategizing interventions. This information will also be used to evaluate the efficacy of PAX.

Thank you so much for all you do and for taking the time to give us this important data!

|                  |
|------------------|
| <b>Name:</b>     |
| <b>Grade:</b>    |
| <b>School</b>    |
| <b>District:</b> |

| Element                 | Description   | 0         | 1              | 2            | 3         | 4      | 5     | RATING | Element Average |
|-------------------------|---|-----------|----------------|--------------|-----------|--------|-------|--------|-----------------|
|                         |   | Not Using | Once a Quarter | Once a Month | Bi-Weekly | Weekly | Daily |        |                 |
| <b>PAX Vision</b>       | PAX Vision board is referenced and updated frequently when PAX and Spleems are discussed.   |           |                |              |           |        |       |        |                 |
|                         | I invite students to <i>predict</i> PAX Vision before activities throughout the day.  |           |                |              |           |        |       |        |                 |
|                         | I <i>monitor</i> PAX and Spleems during activities and transitions, identifying PAX and providing reminders and cues as needed for Spleems. |           |                |              |           |        |       |        |                 |
|                         | Students <i>reflect</i> upon PAX and Spleems after activities or transitions.   |           |                |              |           |        |       |        |                 |
| <b>I'm a PAX Leader</b> | Examples of PAX Leaders are posted in the classroom.  |           |                |              |           |        |       |        |                 |
|                         | I identify prosocial behaviors and reinforce students for being PAX Leaders.  |           |                |              |           |        |       |        |                 |
|                         | Students identify qualities or behaviors of PAX Leaders.  |           |                |              |           |        |       |        |                 |



|                              |  |  |  |  |  |  |  |  |  |
|------------------------------|--|--|--|--|--|--|--|--|--|
| <b>PAX Quiet</b>             | PAX Quiet poster is posted in the room and used for transitions to gain students' attention.                                   |  |  |  |  |  |  |  |  |
|                              | I have full attention of all students and thank them before continuing with instructions.                                      |  |  |  |  |  |  |  |  |
|                              | Students respond quickly to PAX Quiet or I correct and practice the process again.   |  |  |  |  |  |  |  |  |
| <b>Granny's Wacky Prizes</b> | Granny's Wacky Prizes are selected randomly to reinforce performance of a task or Game.  |  |  |  |  |  |  |  |  |
|                              | I use the Timer and PAX Quiet to manage Prize length, start, and stop.   |  |  |  |  |  |  |  |  |
|                              | Students and I participate in Prize with anticipation and enthusiasm.  |  |  |  |  |  |  |  |  |
| <b>Beat the Timer</b>        | Beat the Timer is used multiple times throughout the day.  |  |  |  |  |  |  |  |  |
|                              | When using Beat the Timer, I announce timed goal, encourage & prompt student effort, and thank students for their performance. |  |  |  |  |  |  |  |  |
|                              | Students work to complete activity in accordance with PAX Vision within reduced time to Beat the Timer.                        |  |  |  |  |  |  |  |  |
| <b>PAX Stix</b>              | Selection of PAX Stix appears random, even if it is not.   |  |  |  |  |  |  |  |  |
|                              | PAX Stix are used to call on students to answer questions.   |  |  |  |  |  |  |  |  |
|                              | I use PAX Stix for student selection in other activities.  |  |  |  |  |  |  |  |  |
|                              | Students support each other by taking turns respectfully and volunteering help when necessary.                                 |  |  |  |  |  |  |  |  |
| <b>Tootle Notes</b>          | Tootle Notes are current and visually evident in the classroom and in classroom dialogue.                                      |  |  |  |  |  |  |  |  |
|                              | I write A dult-to-Adult and A dult-to-Student Tootle Notes while verbally modeling the process for students.                   |  |  |  |  |  |  |  |  |
|                              | Students write Tootle Notes to each other describing PAX behaviors.  |  |  |  |  |  |  |  |  |

|                       |  |  |  |  |  |  |  |              |  |
|-----------------------|--|--|--|--|--|--|--|--------------|--|
| <b>PAX Voices</b>     | PAX Voices Poster is posted and referenced before and after activities.  |  |  |  |  |  |  |              |  |
|                       | Students demonstrate accurate <i>prediction</i> and use of PAX Voices.   |  |  |  |  |  |  |              |  |
|                       | I <i>monitor</i> PAX Voices during activities and transitions, provide reminders and cues as needed.                                     |  |  |  |  |  |  |              |  |
|                       | Students <i>reflect</i> upon PAX Voices after activities or transitions.   |  |  |  |  |  |  |              |  |
| <b>PAX Hands/Feet</b> | PAX Hands and Feet poster is posted and referenced before and after activities.  |  |  |  |  |  |  |              |  |
|                       | Students demonstrate accurate <i>prediction</i> and use of PAX Hands and Feet.   |  |  |  |  |  |  |              |  |
|                       | I <i>monitor</i> PAX Hands/Feet during activities and transitions, provide reminders and cues as needed.                                 |  |  |  |  |  |  |              |  |
|                       | Students <i>reflect</i> upon PAX Hands/Feet after activities or transitions.   |  |  |  |  |  |  |              |  |
| <b>OK/Not OK</b>      | OK/Not OK cards are present on desk, wall, or teacher lanyard.   |  |  |  |  |  |  |              |  |
|                       | I use OK/Not OK to provide students non-emotional, non-verbal feedback.  |  |  |  |  |  |  |              |  |
|                       | Students respond appropriately to the teacher's OK/Not OK cue.   |  |  |  |  |  |  |              |  |
| <b>PAX Game</b>       | PAX Game is played at least 3 times per day in a variety of settings or activities.  |  |  |  |  |  |  |              |  |
|                       | I have grouped students into temporary or fixed teams that are balanced in terms of number and make-up.                                  |  |  |  |  |  |  |              |  |
|                       | Students are aware of initial PAX Game procedures and transition to game efficiently.  |  |  |  |  |  |  |              |  |
|                       | PAX Game begins with a thoughtful student <i>prediction</i> and ends with a <i>reflection</i> of PAX and Spleems for the given activity. |  |  |  |  |  |  |              |  |
|                       | I identify the PAX during the game and accurately <i>monitor</i> and notice Spleems with low emotion.                                    |  |  |  |  |  |  |              |  |
|                       | I use Kernels and Cues appropriately throughout the game.  |  |  |  |  |  |  |              |  |
|                       |  |  |  |  |  |  |  | <b>Total</b> |  |